This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

No.

BOSTON
MEDICAL LIBRARY
ASSOCIATION,

19 BOYLSTON PLACE.

[illegible] B. 2 [illegible]

THE AUSTRALASIAN

MEDICAL GAZETTE:

THE

ACCREDITED ORGAN

OF ALL THE

PRINCIPAL MEDICAL SOCIETIES IN AUSTRALASIA.

BOSTON MEDICAL
APR 18 1894
LIBRARY ASS'N.

VOL. XII.

FROM JANUARY TO DECEMBER, 1893.

Sydney:
L. BRUCK, MEDICAL PUBLISHER.
1893.

GREAT BRITAIN:—BAILLIERE, TINDALL & COX, 20 King William Street, Strand, London, W.C.
AMERICA:—P. BLAKISTON, SON & Co., 1012 Walnut Street, Philadelphia, U.S.A.
INDIA:—N. K. RAO & Co., Tardeo, Bombay.

CATALOGUED
APR 12 1894
E. H. B.

INDEX.

PAGE

ABDOMINAL Cases, Three Instructive, by C. W. MacCarthy, M.D., F.R.C.S.I. 332
Alexander's Operation, On the value of, in certain malpositions of the Uterus, by E. T. Thring, F.R.C.S.E., L.R.C.P. Lond. 201
Alfred Hospital, Melbourne, The alleged surgical blunder at the (Editorial) .. 351
Anchylosis of Lower Jaw, by B. Poulton, M.D., M.R.C.S. 220
Andrews, A., Two successful cases of Ectopic Gestation 184
Andrews, A., Notes of 800 Consecutive Midwifery Cases 361
Andrews, A., Case of Superfœtation .. 364
Antrum of Highmore, Empyema of the, by C. H. Smith-Hozier, F.R.C.S.I. .. 109
Anus, Imperforate (Letter) 25
Archer, R. K., Case of Acute Inversion of Uterus 413
Arsenic, Two Cases of Peripheral Neuritis following the use of, by C. Purser, M.B... 285
Arthur, R., In Defence of Hypnotism .. 238
Asthenopia, Electric Light, by C. G. Macleod, M.B. Ed. 196
Asthma Cured by Intra-nasal Treatment, by C. H. Smith-Hozier, F.R.C.S.I. 111
Asthma, Case of, treated by Hypnotic Suggestion, by J. M. Creed, L.R.C.P., M.R.C.S.E. 199
Australasian Medical Association (Editorial) 419

BACOT, W. R., Frequent Pulse after Vaginal Hysterectomy 186
Ballarat Medical Association, Monthly Meetings 180, 234, 262, 334
Bancroft, P., Death during the Administration of Chloroform 232
Bancroft, P., Suppuration in Lesser Peritoneum 417
Bancroft, Thos. L., On Snakebite 43
Bancroft, Thos. L., Entozoal Parasites .. 258
Beeston, J. L., Presidential Address .. 164
Beeston, J. L., Case of Intussusception .. 372
"Bellamy Southern," The Case of (Letter from Dr. A. Andrews) 206
Bennet, F. A., Notes on Xanthoma .. 228
Bennet, F. A., Ichthyosis Palmaris *et* Plantaris 344
Biographies, Medical (Editorial) .. 353
Birch, C. O., Hypnotism as a Therapeutic Agent in disease 251
Births, Marriages, and Deaths, 31, 67, 103, 137, 171, 209, 245, 283, 355, 389
Blue Gum (Eucalyptus Globulus) Oil, Case of Death following, by A. Neale, M.D... 115
Books, New Medical 31, 67
Brady, A. J., & Creed, J. M., Removal of Nasal Polypi under Hypnotic Suggestion 404
Brisement Force, Treatment of Articular Stiffness by (Letter) 60
Bruck, L., The Present State of the Medical Profession in Australia, Tasmania, and New Zealand 94
Byrne, W. S., Four Cases of Syncope during Chloroform Inhalation .. 231

CALCULUS, Some Cases of Vesical, by R. D. Pinnock, M.D. 262
Cancer, Recent Work on the Pathology of, by G. E. Rennie, M.D., M.R.C.S.E. 69, 105, 175
Cancer, On the Therapeutic Value of Carica Papaya in, by E. Hirschfeld, M.D. 336
Carbolic Acid, Case of Poisoning by, A. W. Marwood, L.R.C.P. *et* R.C.S. Ed. .. 78

PAGE

Carbuncle, Two Cases of Facial, by W. T. Hayward, L.R.C.P. Irel. .. 297, 410
Chambers, T., Case of Ovariotomy during Pregnancy.. 12
Childbed Fever and Modern Research, by E. W. Way, M.B., M.R.C.S.E. 271
Children's Hospital, Sydney (Editorial) 238
Chisholm, W., Case of Hydatid of the Brain 38
Chloroform Anæsthesia, Recent Research on, by A. J. Turner, M.D. Lond. . 391
Chloroform Inhalation, Four Cases of Syncope during, by W. S. Byrne, M.B. 231
Chloroform, Death during the Administration of, by P. Bancroft, M.B. .. 232
Chloroform Administration, Discussion on .. .. : 230
Clay, W. R., Podalic Version in Flat Pelvis 116
Clinical Notes of a Country Surgeon, by E. H. L. Pratt, M.D., M.R.C.S.E. .. 288
Cocaine, Notes on, by M. J. Symons, M.D. 7
Colotomy, Case of Inguinal, in an Infant, by C. E. Todd, M.D. 185
Congress The next International Medical 62, 319
Congress, Transactions of (Letter) .. 280
Creed, Hon. J. M., Presidential Address 149
Creed, Hon. J. M., Case of Asthma treated by Hypnotic Suggestion .. 199
Creed, J. M., Rapid Improvement in Case of Hemiplegia following Hypnotic Suggestion.. 266
Creed, J. M., Case of Dipsomania cured under Hypnotic Suggestion 269
Creed, J. M., Persistent Incontrollable Vomiting cured by Hypnotic Suggestion 370
Cremation (Letter).. 207

DERMATITIS Herpetiformis, Case of, by W. McMurray, M.D. 286
Diarrhœa, Summer, of Infants, by J. T. Mitchell, M.D. 234
Diphtheria, Antiseptic Treatment of (Letter) 23
Diphtheria, On the Treatment of, with Pilocarpine, by E. Hirschfeld, M.D. .. 117
Diphtheria, Notes on a Localized Outbreak of, in a London Suburb, by John Ure, M.D., M.R.C.S.E. 310
Diplomas of Honour! (Editorial) .. 205
Dipsomania, Case of, cured under Hypnotic Suggestion, by J. M. Creed, M.R.C.S.E... 269
Dislocation of Shoulder reduced under Ether after existing six weeks, by C. E. Todd 78
Divers, Deep-water (Editorial) 351
Doyle, Mr. Martin, and Medical Advertising (Letter) 134

EASTERN Medical Association of Sydney 19, 59, 338
Eczema, Infantile, Discussion on .. 221
Electro-magnet, Chip of Steel in Vitreous Humour removed by, by F. A. Pockley, M.B. *et* Ch.M. Ed., M.R.C.S.E... .. 200
Electro-magnet Operations on the Eye (Letter) 240
Eclampsia, Cases of, by J. A. Wheeler, M.B., M.R.C.S.E... 186
Ectopic Gestation, Two successful cases of, by A. Andrews, M.R.C.S.E... 184
Ectropion, Transplantation of Skin for, by W. F. Taylor, M.D. 93
Electrolysis of Nævus, by A. J. McDonnell, M.B., Ch.M... 330
Empyema, Case of, of Abdominal Origin, by R. H. Marten, L.R.C.P. Lond., M.R.C.S.E... 195

PAGE

FEEDING, The Artificial, of Infants, by W. Nickson, M.D. 327
Filaria Sanguinis Hominis, What effect has the, upon its human host in Queensland? by E. S. Jackson, M.B., Ch.B. Melb. 269
Flood, The, of 1893, by D. Hardie, M.D. 189
Forceps, The, in Labour, by David Hardie, M.D. 182

GARDE, H. C., Hydatid of Liver treated by Incision and Drainage 316
Gardner, W., The Radical Cure of Hernia 39
Gestation, Ectopic, complicating Normal Pregnancy, by R. Worrall, M.D. .. 3
Gestation, Case of Ectopic (Letter) .. 23
Giles, W. A., Bassini's Method of the Radical Cure of Inguinal Hernia .. 54
Giles, W. A., Tropical Abscess of Liver 85
Glycosuria, An Analysis of 30 cases of, by R. H. Marten, M.B. *et* B.C. Cant., L.R.C.P. Lond. 289
Graham, J., Multiple Neuritis among Chinamen in Sydney 357

HÆMATO-SALPINX, Case of Double, by E. T. Thring, F.R.C.S.E. 1
Hæmaturia, Case of Endemic, by L. L. Seabrook, M.B. *et* Ch.B. Adel. .. 194
Hæmaturia in Snakebite Poisoning, by A. Mueller, M.D... 247
Hæmorrhage, Accidental, by C. E. Todd, M.D., L.R.C.P. Lond. 242
Hamilton, J. A. G., on Hepatic Abscess 93
Hamilton, T. K., Sabine v. Hamilton .. 123
Hamilton, T. K., Orbital Cellulitis .. 300
Hardie, D., The Flood of 1893 189
Hardie, D., The Forceps in Labour .. 182
Hare, F. E., Flap-splitting Operation for Rupture of the Perineum into the bowel 249
Hayward, W. T., Two Cases of Facial Carbuncle 297, 410
Haynes, E. J. A., Smallpox in Perth, W.A., with some Observations on Vaccination 211
Hayward, W. T., Two Cases of Tetanus 52
Hayward, W. T., Abscess of Liver .. 89
Hemiplegia, Rapid Improvement in Case of, following Hypnotic Suggestion, by J. M. Creed, M.R.C.S.E... 266
Henry, T. J., Case of Strychnine Poisoning 73
Hepatic Abscess, Seven Cases of, by A. A. Lendon, M.D. Lond. 80
Hepatic Abscess, by J. A. G. Hamilton, M.B. 93
Hepatic Abscess, Operative Interference in three cases of, by B. Poulton, M.D. 91
Heredity or Chance (Letter) 320
Hernia, The Radical Cure of, by W. Gardner, M.D., Ch.M. Glas. 39
Hernia, Bassini's Method of the Radical Cure of Inguinal, by W. A. Giles, M.B. *et* Ch.M. Ed. 54
Hernia, Case of Inguinal Ovarian, by E. W. Way, M.B. 191
Hernia, Case of Strangulated, in a Multipara nine months pregnant, by F. G. Smith, L.R.C.P. Lond. 372
Hirschfeld, E., On the Therapeutic Value of Carica Papaya in Cancer .. 336
Hypnotism, In Defence of, by Dr. R. Arthur 238
Hirschfeld, E., On the Treatment of Diphtheria with Pilocarpine 117
Hoets, A. K., Case of Intestinal Obstruction caused by Bananas.. 73
Hodgkinson's Neurotone, Three Cases treated by, by A. Jarvie Hood, M.B. *et* Ch.M. Glas. 1

PAGE
Hodgkinson's Neurotone, Case of Paraplegia treated with (Letter) 24
Hodgkinson's Neurotone, Obstinate Sciatica greatly benefitted by (Letter) .. 24
Hoggan, B. B., Case of two acute Ulcers of Stomach, resulting from kick by a horse 189
Hood, A. Jarvie, Three Cases treated by Hodgkinson's Neurotone 1
Hood, J. Jarvie, Rare Case of Fractured Humerus 364
Howse, Dr., v Dr. McGwire (Editorial) 21
Hozier, C. H. Smith, Tornwaldt's Disease and Post-nasal Adenoids 6
Hozier, C. H. Smith, Empyema of the Antrum of Highmore 109
Hozier, C. H. Smith, Complicated Double Hypertrophic Rhinitis.. .. 110
Hozier, C. H. Smith, Case of Asthma cured by Intra-nasal Treatment .. 111
Humerus, Rare Case of Fractured, by J. Jarvie Hood, M.B. 364
Hunt, C. L. W., Case of Hystero-Epilepsy 219
Hydatid of the Brain, Case of, by W. Chisholm, M.D. Lond. 38
Hydatids, Case of Pulmonary, by R. Scott, M.B. Ch.M. 142
Hydatid of Tibia and Knee Joint, Case of, by B. Poulton, M.B., M.R.C.S.E. .. 193
Hydatid, Hepatic, ruptured by accident into the peritoneum, by J. C. Verco, M.D. Lond., F.R.C.S.E. 295
Hydatid of Liver simulating Gall Stone Colic by Dr. R. Stewart 302
Hydatid of Liver, Case of, treated by Incision and Drainage, by H. C. Garde, F.R.C.S. Ed. 316
Hydatid, Two Cases of Pelvic, causing Retention of Urine, by F. J. T. Sawkins, M.B. Ch.M. Syd. 363
Hypnotism (Letter) 62
Hypnotism as a Therapeutic Agent in Disease, by C. O. Birch, L.R.C.P. Lond. 251
Hysterectomy, Frequent Pulse after Vaginal, by W. R. Bacot, M.R.C.S. .. 186
Hysteria, Some Remarkable Phases of, by R. S. Rogers, M.B. Ch.M. Ed. .. 156
Hystero-Epilepsy, Case of, by C. L. W. Hunt, M.B. *et* Ch.M. Syd. 219

ICHTHYOSIS Palmaris *et* Plantaris, by F. A. Bennet, M.D. 344
Immunity, On acquired and Innate, from specific disease (Letter from Dr. G. S. Samuelson).. 382
Impostor, An (Letters) 241
Inebriate Asylums (Editorial) 279
Infant, A weighty female, by Geo. Read, L.R.C.S.I. 184
Infectious Diseases, Compulsory Notification of, by Wilton Love, M.B. .. 179
Insane Population of New South Wales in 1892 243
Insanity, The Plea of (Editorial) .. 418
Influenza or Influenzoid? (Letter) .. 384
Intestinal Obstruction caused by Bananas, by A. K. Hoets, M.R.C.S.E. 73
Intubation in Germany (Letter) .. 132
Intussusception, Case of, by R. Scott, M.B., Ch.M. 335
Intussusception, Case of, by Dr. J. L. Beeston 372

JACKSON, E. S., What Effect has the Filaria Sanguinis Hominis upon its human host in Queensland? 260
James, P., The Treatment of Intra-articular Adhesions by Forcible Wrenching 167
Jamieson, Sydney, Case of Pachymeningitis Hæmorrhagica Interna 225

KENDALL, T. M., Rickets 227
Kissing the Book (Letter) 98

LADY Bowen Hospital, Brisbane, Records of the, by Wilton Love, M.B. 145
Lawson, G. G. L., Case of Snakebite treated with Strychnia 362
Lendon, A. A., Seven Cases of Hepatic Abscess 80

PAGE
Leprosy Commission in India, Report of the, by J. Ashburton Thompson, M.D., D.P.H. 346, 378
Leprosy and Syphilis, The Analogous Aspect of, by W. McMurray, M.D. .. 112
Lithotomy, Case of Suprapubic, by F. W. Monsell, L.R.C.S. 57
Lithotomy, Suprapubic, by E. Sheaf, F.R.C.S. Ed. 120
Liver, Tropical Abscess of, by W. A. Giles, M.B. *et* Ch.M. Ed. 85
Liver, Abscess of, by W. T. Hayward, M.R.C.S.E. 89
Lodge Practice, A Point of Interest in (Letters) 353
Love, Wilton, Records of the Lady Bowen Hospital, Brisbane 145
Love, Wilton, Compulsory Notification of Infectious Diseases 179

MACCARTHY, C. W., Three Instructive Abdominal Cases 332
McDonnell, Æ. J., Case of Ovariotomy 72
McDonnell, Æ. J., Electrolysis of Nævus 330
McDonnell, Æ. J., Case of Trephining .. 360
Macleod, C. G., Electric Light Asthenopia 196
McMurray, W., The Analogous Aspect of Syphilis and Leprosy.. 112
McMurray, W., Case of Dermatitis Herpetiformis 283
McNish, J., Case of Traumatic Tetanus in an Aboriginal—Recovery 399
Maher, W. O., Cases of Paralysis of Ocular Muscles 264
Marks, C. F., Suppuration in Lesser Peritoneum 417
Marten, R. H., Case of Empyema of Abdominal Origin 195
Marten, R. H., An Analysis of 30 cases of Glycosuria 289
Marwood, A. W., Case of Poisoning by Carbolic Acid 78
Mastoiditis, Suppurative, by B. J. Newmarch, L.R.C.P. Lond., M.R.C.S.E. .. 303
Measles, Case of Uræmia sequent on, by S. Zichy-Woinarski, F.R.C.S.I. .. 334
Medical Advertising (Letters) .. 26, 242
Medical Adviser to the New South Wales Government (Editorial) .. 20
Medical Appointments 30, 67, 103, 137, 172, 209, 245, 282, 321, 355, 374, 427
Medical Bill for New South Wales (Editorial).. 352
Medical Boards Proceedings of Colonial 31, 59, 103, 131, 172, 209, 245, 283, 321, 355, 374, 427
Medical Ethics (Letters) 133, 169
Medical Etiquette (Letters) 319, 383, 385
Medical Profession in Australia, Tasmania and New Zealand, The present state of, by L. Bruck 94
Medical Profession in Australia (Letter) 320
Medicine Vendors, Unlicensed (Editorial) 376
Meningitis, Case of Tubercular, by A. Shewen, M.D. 5
Meningitis, Diagnosis of Tubercular, by Angel Money, M.D., F.R.C.P. Lond. .. 178
Meteorological Observations, 32, 68, 104, 138, 173, 210, 246, 284, 322, 356, 390, 428
Midwifery Cases, Notes of 800 Consecutive, by A. Andrews, M.R.C.S.E. .. 361
Milford, Dr., and Bruck's Medical Directory.. .. .. 134, 241
Mineral Springs of Australia (Editorial) 375
Mitchell, J. T., Summer Diarrhœa of Infants 234
Money, Angel, Case of Crossed Paralysis from Cerebellar Disease 33
Money, Angel, On the Diagnosis of Tubercular Meningitis 178
Monsell, F. W., Case of Suprapubic Lithotomy.. 57
Month, The, 28, 64, 101, 136, 170, 207, 244, 281, 320, 354, 388, 424
Morphia Poisoning, Case of, successfully treated by Atropine, by W. F. Taylor, M.D. 230
Mortality, Reported, 32, 68, 104, 138, 173, 210, 246, 284, 322, 356, 390, 428
Mueller, A., Hæmaturia in Snakebite Poisoning 247

PAGE
Mueller, A., On some Reviews of Snake Poison, its Action and its Antidote .. 401
Myelitis, Six Cases of, by T. B. Whitton, M.D. 323
Myelitis, Two Cases of, by T. B. Whitton, M.D. 398

NÆVUS, Electrolysis of, by Æ. J. McDonnell, M.B., Ch.M. 330
Nasal Polypi, Removal of, Under Hypnotic Suggestion, by A. J. Brady, L.R.C.S.I., & J. M. Creed, M.R.C.S.E. 404
Nash, J. B., Complete Inversion of Uterus 78
Nash, J. B., Prevalence of Stone in the Bladder in Australia 253
Neale, A., Case of Death following Blue Gum (Eucalyptus Globulus) Oil .. 115
Nephrectomy, Nephrotomy, and Hydronephrosis, by J. C. Verco, M.D. .. 339
Neuritis, Multiple, among Chinamen in Sydney, by J. Graham, M.D. 357
Newmarch, B. J., Suppurative Mastoiditis—Cerebral Abscess—Recovery .. 303
Neuritis, Two Cases of Peripheral, following the use of Arsenic, by C. Porter, M.B 285
Newcastle, N.S.W., Medical Society, Annual Meeting 164
Newcastle, N.S.W., Medical Society, General Meetings.. .. 221, 309, 372
New South Wales Branch B. M. A., General Meetings, 11, 149, 199, 223, 264, 303, 343, 364, 404
New South Wales Branch B. M. A., Annual Meeting 130
Nickson, W., The Artificial Feeding of Infants 327
Nolan, H. R., Case of Acute Peritonitis due to Perforation of Vermiform Appendix 218

OBITUARY (Dr. George Bennett) .. 349
Ocular Muscles, Cases of Paralysis of, by W. O. Maher, M.D. 264
Opium Smoking, Is it hurtful? 206
Orbital Cellulitis, by T. K. Hamilton, M.D., F.R.C.S.I. 300
Ourselves and Our Contributors (Editorial) 420
Ovariotomy, Case of during Pregnancy, by Thos. Chambers, F.R.C.P. & S. Ed. 12
Ovariotomy, Case of, by Æ. J. McDonnell, M.B., Ch.M... 72

PACHYMENINGITIS Hæmorrhagica Interna, Case of, by Dr. Sydney Jamieson 225
Paralysis, Case of Crossed, from Cerebellar Disease, by Angel Money, M.D., F.R.C.P. Lond. 33
Paralysis, Two Fatal Cases of Acute (Landry's), by E. S. Stokes, M.B. .. 34
Parasites, Entozoal, by Thos. L. Bancroft, M.B., Ch.M. Ed. 258
Parry, Ll. D., Laceration of Vagina by Indirect Violence 153
Pathologist, The N. S. W. Government (Editorial) 280
Pelvis, Podalic Version in Flat, by W. R. Clay, L.R.C.P. Lond. 116
Perineum, Flap-splitting Operation for Rupture of the, by F. E. Hare, M.D. 249
Peritoneum, Suppuration in Lesser, by C. F. Marks, M.D. 417
Peritoneum, Suppuration in Lesser, by P. Bancroft, M.B... 417
Peritonitis, Case of Acute, due to Perforation of Vermiform Appendix, by H. R. Nolan, M.B. *et* Ch.M. Syd. .. 218
Peritonitis followed by Acute Empyema, by A. Shewen, M.D. Lond. 252
Pert Case, The (Editorial) 318
Pert Case, The (Letter) 384
Pinnock, R. D., Some Cases of Vesical Calculus 262
Pockley, F. A., Chip of Steel in Vitreous Humour removed by Electro-magnet.. 200
Poisoning with Antiseptic Tabloids, by J. Struthers, M.D. Aberd. 287
Poisons, The sale of, in New South Wales (Editorial) 60

PAGE
Poulton, B., Operative Interference in three Cases of Hepatic Abscess .. 91
Poulton, B., Case of Hydatid of Tibia and Knee Joint.. 193
Poulton, B., Anchylosis of Lower Jaw treated by Excision of Condyle .. 220
Power, J. J., Perforating Ulcers of the Septum Narium 16
Pratt, E. H. L., Clinical Notes of a Country Surgeon 288
Pregnancy, Two Cases of, by E. T. Thring, F.R.C.S.E. 113
Prosecution of an Unregistered Practitioner in Victoria (Editorial) .. 166
Publications, Recent Medical 172
Puerperal Septicæmia, Analysis of Thirteen Cases of, by R. Worrall, M.D., .. 406
Purser, C., Two Cases of Peripheral Neuritis following the use of Arsenic 285

QUACK Medicines (Editorial) 378
Quacks, Advertising (Letter) 26
Queensland Medical Association, General Meetings, 93, 120, 148, 199, 229, 258, 336. 416
Queensland Medical Society, Annual Meeting 47
Queensland Medical Society, General Meetings, .. 43, 144, 186, 230, 310, 415
Queensland Medico-ethical Society 51, 291
Queensland Medico-ethical Society (Editorial) 166
Query, A (Letter) .., ... 353

READ, Geo., A weighty female Infant .. 184
Remedies, Popular but Dangerous (Editorial).. 377
Rennie, G. E., Recent Work on the Pathology of Cancer .. 69, 105, 175
Reviews .. 135, 165, 243, 281, 387, 423
Rhinitis, Complicated Double Hypertrophic, by C. H. Smith-Hozier, F.R.C.S.I. 110
Rickets, by T. M. Kendall 227
Rogers, R. S., Some Remarkable Phases of Hysteria 156
Roth, Walter E., The Hygienic Conditions and Ambulance Arrangements at the late Cadet Encampment near Sydney 40
Royal Society of New South Wales, Medical Section of the, Meetings, 154, 234, 316, 414
SABINE v. Hamilton, by T. K. Hamilton, M.D. 123
Sabine v. Hamilton, by J. C. Verco, M.D. 127
Sabine v. Hamilton (Editorial) . .. 131
Samuelson, G. S., Three Cases of Suspended Animation in the Newly-born 403
Sawkins, F. J. T., Two Cases of Pelvic Hydatid, causing Retention of Urine 363
Sclerosis, Cases of Lateral, by T. B. Whitton, M.D. 214
Scott, R., Case of Pulmonary Hydatids 142
Scott, R., Case of Intussusception .. 335
Seabrook, L. L., Case of Endemic Hæmaturia 194
Septum Narium, Perforating Ulcers of the, by J. J. Power, M.B. *et* Ch.M. Dubl. 16
Sheaf, E., Suprapubic Lithotomy .. 120
Shewen, A., Case of Tubercular Meningitis 5
Shewen, A., Peritonitis followed by Acute Empyema 252
Skinner, D., and Mueller, A., A Remarkable Case of Death from Snakebite .. 74
Slaughter-houses, The, of New South Wales (Editorial) 421
Smallpox and Australia (Editorial) .. 19

PAGE
Smallpox in Western Australia (Editorial) 165
Smallpox, Vaccination in relation to .. 26
Smallpox in Perth (W.A.), by E. J. A. Haynes, L.R.C.P., M.R.C.S. 211
Smith, G. F., Case of Strangulated Hernia in a Multipara nine months pregnant 372
Smyth, T. E., Snakebite treated with Strychnine 119
Snakebite, Strychnine in, 27, 63, 99, 134, 385, 423
Snakebite treated with Strychnine, by T. E. Smyth. M.D. 119
Snakebite treated with Strychnine, by G. L. L. Lawson. M.R.C.P., D.P.H. Ed. 362
Snakebite, Remarkable Case of Death from, by D. Skinner, M.B., and A. Mueller, M.D. 74
Snakebite, On, by Thos. L. Bancroft, M.B. Ed. 43, 384
Snakebite Poisoning, Hæmaturia in, by A. Mueller, M.D. 247
Snake Poison, its Action and its Antidote, On some Reviews of, by A. Mueller, M.D. 401
South Australia, Association of Registered Medical Practitioners of.. .. 58
South Australian Branch B. M. A., Monthly Meetings, 7, 51, 79, 155, 190, 294, 338, 373, 410
South Australian Branch B. M. A., Special Meeting 123
South Australian Branch B. M. A., Annual Meeting 270
Stewart, R., Case of Hydatid of Liver simulating Gall Stone Colic .. . 302
Stokes, E. S., Two fatal cases of Acute Paralysis (Landry's) 34
Stomach, Case of Two Acute Ulcers of, resulting from kick by a horse, by Dr. B. B. Hoggan 189
Stone in the Bladder. The Prevalence of, in Australia, by J. B. Nash, M.D. Ed. 253
Struthers, J., Poisoning with Antiseptic Tabloids .. : 287
Strychnine Poisoning, Case of, by T. J. Henry, L.R.C.P. *et* R.C.S. Ed... .. 73
Strychnine in Snakebite, 27, 63, 99, 119, 134, 362, 384, 385, 423
Superfœtation, Case of, by A. Andrews, M.R.C.S.E... 364
Suspended Animation in the Newly-born, Three Cases of, by G. S. Samuelson, M.D. 403
Symons, M. J., Notes on Cocaine .. 7
Syphilis and Leprosy, The Analagous Aspect of, by W. McMurray, M.D. .. 112

TAYLOR, W. F., Transplantation of Skin for Ectropion 98
Taylor, W. F., Inaugural Address .. 120
Taylor, W. F., Case of Morphia Poisoning successfully treated by Atropine .. 230
Tetanus, Two Cases of, by Thos. B. Whitton, M D. Qu. Univ. Irel. .. 85
Tetanus, Two Cases of, by W. T. Hayward, M.R.C.S.E. 52
Tetanus, Case of Traumatic, in an Aboriginal, by J. McNish, M.B. 399
Thermo-Urinometer, A new 424
Thompson, J. Ashburton, Report of the Leprosy Commission in India .. 346, 378
Thring, E. T., Case of Double Hæmato-Salpinx—Operation 1
Thring, E. T., Two Cases of Tubal Pregnancy 113
Thring, E. T., On the Value of Alexander's Operation in certain Malpositions of the Uterus 201

PAGE
Todd, C. E., Dislocation of Shoulder reduced under Ether after existing six weeks 78
Todd, C. E., Case of Inguinal Colotomy in an Infant 185
Todd, C. E., Accidental Hæmorrhage .. 242
Tornwaldt's Disease and Post-nasal Adenoids, by C. H. Smith-Hozier, F.R.C.S.I. 6
Toxic Action of Commonly-used Drugs (Letter) 25
Trephining, Case of, by Æ. McDonnell, M.B. *et* Ch.M. 360
Turner, A. J., Recent Research on Chloroform Anæsthesia.. .. . 391

UNQUALIFIED Practitioners – Death Certificates (Letters) 25, 63
Uræmia, Case of, sequent on Measles, by S. Zichy-Woinarski, F.R.C.S.I.. .. 334
Ure, J., Notes on a Localized Outbreak of Diphtheria in a London Suburb .. 310
Uterus, Complete Inversion of, by J. B. Nash, M.D. 78
Uterus, Two Cases of Inversion of, by E. W. Way, M.B. 411
Uterus, Case of Acute Inversion of, by R. K. Archer, M.R.C.S. 413
Uterus, Adenomatous, and Double Ovarian Tumour in a young girl, by R. Worrall, M.D... 308
Vaccination in relation to Smallpox .. 26
Vaccinators, Dismissal of Government, (Letter) 385
Vagina, Laceration of, by Indirect Violence, by Ll. D. Parry 153
Vanzetti's Art Union 283, 321
Verco, J. C., Sabine v. Hamilton .. 127
Verco, J. C., Hepatic Hydatid ruptured by accident into the Peritoneum .. 295
Verco, J. C., Hydronephrosis, Nephrotomy, and Nephrectomy 339
Verdict, An Absurd (Editorial).. .. 279
Vomiting. Persistent Incontrollable, cured by Hypnotic Suggestion, by J. M. Creed, L.R.C.P. 370

WALKER Convalescent Hospital near Sydney .. .. : 350
Way, E. W., Case of Inguinal Ovarian Hernia 191
Way, E. W., Modern Research and Childbed Fever 271
Way, E. W., Two Cases of Inversion of Uterus 411
Western Medical Association of Sydney, Annual Meeting 205
Wheeler, J. A., Cases of Eclampsia .. 186
Whitton, Thos. B., Two Cases of Tetanus 35
Whitton, Thos. B., Cases of Lateral Sclerosis 214
Whitton, Thos. B., Six Cases of Myelitis 323
Whitton, Thos. B., Two Cases of Myelitis 398
Worrall, R., Ectopic Gestation, Complicating Normal Pregnancy — Abdominal Section 3
Worrall, R., Adenomatous Uterus and Double Ovarian Tumour in a young girl 308
Worrall, R., Analysis of Thirteen Cases of Puerperal Septicæmia 406

XANTHOMA, Notes on, by F. A. Bennet, M.D. 223

ZICHY-WOINARSKI, S., Case of Uræmia sequent on Measles 334

3083

AUSTRALASIAN MEDICAL GAZETTE.

BOSTON MEDICAL LIBRARY
APR 12 1894

ORIGINAL ARTICLES.

NOTES OF THREE CASES TREATED BY MEANS OF HODGKINSON'S NEUROTONE.

By A. Jarvie Hood, M.B. et Ch. M. Glas., of Hyde Park, Sydney.

Of these three cases one was a case of persistent occipital headache, which supervened on a severe attack of influenza. The influenza only lasted about four or five days, but left the patient, a female aged 50, extremely weak. The occipital headache then made its appearance and was of a dull heavy character, accompanied by vertigo on assuming the upright posture. It never disappeared, but was always worse on any movement. She was, when I saw her, five months ago, very anæmic and emaciated; and in addition to constitutional treatment I commenced the use of galvanism by means of the neurotone, to the nape of the neck and along the cervical region of the spine, for 20 minutes night and morning, beginning with a weak current and gradually increasing. She experienced no relief for over a fortnight, but after that the headache gradually became less severe, and in six weeks had completely disappeared. She still continues to use the neurotone herself once daily and has only twice had a slight reminder of her former ailment.

The other two cases were cases of gastralgia. The first was that of a young man aged 32, who had been suffering for over 12 months from that affection. He had undergone varied and many treatments without any lasting benefit; he had lost over 18lb. weight during the time stated and was very miserable.

The pain was of a gnawing, tearing description, always relieved by taking of food, but only for a very short time, and reaching its greatest intensity before meals. The tongue was clean and bowels regular, but he suffered very much from sleeplessness, principally due to the pain and partly due to worry at not being able to work. I ordered small meals every three hours, and applied galvanism over the stomach and abdomen generally by means of the neurotone for 20 minutes daily.

He began to improve after a few applications, but it was not till after nearly three weeks that the pain could be said to be leaving. In six weeks the pain completely disappeared and has not returned since, viz., four months ago.

The remaining case is almost identical with the preceding, except that the patient was a pronounced dyspeptic, with large furred tongue, severe pain in the stomach between and before meals, and occasional attacks of diarrhœa alternating with constipation. He also had lost weight to a marked extent, being 6ft. high and only weighing 7st. 12lb.

He was dieted and prescribed for, and after the tongue began to clean I made use of galvanism daily, and am still doing so. The relief of pain has been very much more rapid than in the last case, and now after 10 days' application he is quite free of pain, the tongue is clean and bowels regular.

Resumé.—In mentioning these cases I do not for a moment wish to appear to claim the good results obtained as due entirely to the galvanism applied by means of this special form of instrument, but I think that it was a most powerful adjunct to the other treatment adopted; and this was especially noticeable in the first two cases, one of which had been under various treatments for six months, and the other for 12 months, without any relief.

Elizabeth-street, Hyde Park, Sydney,
January, 1893.

A CASE OF DOUBLE HÆMATO-SALPINX—OPERATION—RECOVERY.

By E. T. Thring, F.R.C.S. Eng., Assistant Gynæcologist Prince Alfred Hospital, Sydney, and Surgeon Lewisham Hospital for Women and Children.

History.—Mrs. G., *æt.* 32 years, married 11 years ago, was left a widow four years ago; two children, the youngest seven years old; two miscarriages, the last about one year before the birth of the youngest child. Menstrual history normal during married life. After husband's death menses became scanty, but were regular and painless.

About February, 1892, patient began to feel ill and languid, then she began to suffer pain at menstrual periods in both iliac regions, and from the end of April, 1892, the pain was severe and constant. On June 1, 1892, she commenced to bleed freely, but thinking it was the usual menstrual period she at first took no notice of it. Bleeding, however, continued for seven days. She then came under my observation. At that time the pain in lower part of abdomen was very severe. There was great tenderness. Temperature varied from 99°F. to 101°F.; bowels constipated.

Physical Examination.—No undue prominence of abdomen, which was, however, too tender to allow deep palpation. Owing to this extreme tenderness it was impossible to thoroughly examine bimanually, therefore an anæsthetic was administered. The cervix uteri was then found to be rather high up; fundus tilted over to right side; the body of the uterus rather large; sound entered 3½ inches. On the left side, and pushing the uterus to the right was a rounded, fluctuating swelling about the size of a turkey's egg. It was fixed. On right side there was a smaller fluctuating swelling apparently in Douglas' pouch, fixed. The swelling on the left side was thought to be probably lying between the layers of the left broad ligament. The uterus was not completely fixed, although not freely moveable. The uterus was curetted, but shewed no sign of decidua, and very little evidence of chronic endometritis.

A diagnosis of pyosalpinx was made, and although the question was raised as to the possibility of an ectopic gestation existing on the left side, this was rendered improbable, owing to the fact that the patient had been a widow for four years.

Operation.—On June 14, 1892, the abdomen was opened, the incision being made intentionally through the sheath of rectus muscle. Position of uterus found as described above. There was general matting together of the pelvic contents to the walls and to loops of intestine. The swelling on right side was separated posteriorly down to the bottom of Douglas' pouch, and found to be a dilated Fallopian tube. The ovary could not then be distinguished. The tube was distended from close to the uterus, becoming larger up to the occluded fimbriated extremity. It was everywhere adherent, and on separating these adhesions there was very free bleeding. A silk ligature was passed through the broad ligament, and tube removed close to the uterus. A very similar condition was found on right side, although the ovary was distinguishable, and it and the tube were removed as on the left side. Bleeding from the raw surfaces left after separation of the adhesions was controlled by sponge pressure. The round ligament was left on each side, not being included in the ligature. Peritoneal cavity was cleaned out, and a glass drainage tube passed down to the bottom of Douglas' pouch. The oozing of almost pure blood was rather free for a few hours, and it was necessary to suck up the fluid with a syringe every quarter-of-an-hour for a time; the flow then lessened, and the tube was removed at the end of 24 hours.

With the exception of somewhat obstinate constipation and flatulent distension, the patient made a perfectly good recovery.

July 14, 1892.—The patient was quite free from pain; was feeling well in every way, and had been out for a short walk; uterus freely moveable; no vaginal discharge.

On examining the specimens removed the left Fallopian tube was found to be distended with blood-clot in a somewhat curious manner. The closed distal extremity was occupied by an old partly-decolourized clot, sharply defined from, and compressed by, another more recent clot occupying the middle portion of the tube; and this again was marked off from another recent hæmorrhage which occupied the proximal portion of the tube. The left ovary was found to be expanded over the distal portion of the tube, forming a layer not more than one-tenth of an inch thick. There was no sign of an ovum. The right tube was in a similar condition to that just described, except that there were only two hæmorrhages instead of three. The ovary was not flattened out. The case is a somewhat unusual one, as it seems to have been a true hæmato-salpinx as distinguished from a tubal pregnancy, into the sac of which hæmorrhage had taken place. As confirmatory evidence of this, there was no history of any decidua having been passed, nor was there any sign of decidual membrane in the uterus when the curetting was done. Besides, both tubes were distended with blood, and a case of double tubal pregnancy is, to say the least, unusual. The exceptional amount of bleeding from the uterus, which took place just before the operation, was probably due to some of the blood finding its way from one or other of the tubes into the uterine cavity.

As bearing upon this, I may mention an interesting case which has occurred in my practice quite recently. A lady, whom I have attended from time to time for retroversion and dislocation of the left ovary into Douglas' pouch, complained of pain in her *right* side. I examined and found a swelling about the size of a hen's egg placed about the level of the upper border of the right broad ligament, freely moveable, cystic, and not attached to the uterus. As I had not examined the patient for some 12 months previous to this, I concluded that the right ovary was becoming cystic. The uterus was normal in size and position. About three weeks after this—just halfway between the usual menstrual periods—a rather profuse discharge of dark blood took place, lasting two or three days. I then examined again, and found that the swelling had disappeared. I am certain that there was no miscarriage, and therefore the only explanation possible is that hæmorrhage had taken place into the right fallopian tube, and that the blood was subsequently discharged through the uterine end of the tube into the uterus.

In describing the operation done upon the first patient I mentioned that both round ligaments were left intact. My reason for doing this—and I always do leave them where it is possible—is that retroversion of the uterus does not take place. In some cases, where the tubes and ovaries have been removed on both sides and the round ligaments interfered with, this retroversion of the uterus does take place, and is most tiresome both to the patient and surgeon.

ECTOPIC GESTATION COMPLICATING NORMAL PREGNANCY—ABDOMINAL SECTION—RECOVERY.*

By RALPH WORRALL, M.D., M.CH., HONORARY ASSISTANT SURGEON TO THE DEPARTMENT FOR WOMEN AT THE SYDNEY HOSPITAL.

◆

E. M., aged 30, consulted me on 7th January, 1890, for a large abdominal tumour.

Previous History.—Married 10 years, five children, the last three years ago; always enjoyed good health up to April, 1888. In that month, the menses having been absent for about six weeks, she was one night awakened from sleep by a severe pain in the abdomen, causing her to feel very faint and to break out into a cold perspiration. Vomiting and diarrhœa set in immediately, and in a few hours a red discharge, like the natural courses, appeared and continued several hours. There were no clots or pieces of membrane. The pain and vomiting persisted for about six weeks, confining her to bed. About two weeks after the pain began she noticed a lump on the lower abdomen, a little to the left, which gradually enlarged. Three doctors attended her during the six weeks she was in bed, but expressed no opinion as to the nature of her illness. Her health gradually became perfectly restored, but the abdomen continued to enlarge, and in about four months she distinctly felt movements. In October, 1888 (about eight months from cessation of catamenia), a sudden flooding, unaccompanied by pain, came on and lasted for three days. "She was then as stout as she usually was at the ninth month." Her medical attendant gave her something which stopped the flooding, and said she would be confined in another month. At the end of that time a red flow appeared in moderate quantity for three days, accompanied by a severe bearing-down pain, differing from ordinary labour pains in being "continuous and not coming and going." This kept on for about a fortnight. Her doctor attended during this time and said she would eventually be confined alright. Instead of this, however, she began gradually to decrease in size. Menstruation returned regularly and naturally, and her general health was soon as good as ever. The tumour, having decreased to a certain point, thereafter remained stationary. About the middle of July, 1889, she menstruated as usual, but "has seen nothing since." From last October the abdomen has steadily enlarged. On again seeing her medical attendant, he said he thought she had a fibroid tumour. Becoming alarmed at this statement, she discussed the subject with her friends, and was advised to consult me.

Present Condition.—A rather thin but healthy-looking woman. The abdomen is occupied by a prominent tumour, reaching two inches above the umbilicus. Careful palpation shows a sulcus running down the centre, dividing it into two almost equal parts, differing, however, greatly from each other. That on the left is well-defined, hard, uneven, nodular, not tender, slightly moveable. That on the right is ill-defined, soft, elastic and smooth; also, however, not tender and slightly moveable. Per vaginam, the right tumour is found to be continuous with the cervix, which is greatly displaced to the left. The left tumour is pushed high out of the pelvis, and can scarcely be reached. The detection on the right side of the abdomen of the fœtal heart and movements, taken in conjunction with the above, made it evident to my mind that here was a living fœtus *in utero*, while on the left it seemed fairly certain I had to deal with an ectopic fœtus which had been carried about by its mother for nearly two years. The pulse and temperature were normal.

In the treatment of the case three courses were open to me: (1) To do nothing; (2) to induce premature labour; (3) to remove the ectopic fœtus by abdominal section.

Against the first were that even then—at the sixth month of utero-gestation—intra-abdominal pressure was causing much discomfort, and it was extremely probable that during the puerperium, if not before, suppuration of the ectopic cyst would take place, with death from septicæmia.

The same result would be as likely to follow the induction of premature labour, as indeed it actually did in a case recorded in the transactions of the last Intercolonial Medical Congress. Furthermore, while this plan involved much danger to the mother and certain death to the child, it allowed the ectopic fœtus to remain as a constant menace to the mother's life; while on the other hand removal of the older fœtus by abdominal section exposed the mother to no greater risk, gave the fœtus *in utero* a fair chance, and if successful left the patient restored to perfect health.

---

* Read before the Section of Obstetrics at the Third Session of the Intercolonial Medical Congress, but not to be published in the transactions.

This last plan, therefore, I determined to adopt, and the patient's means not allowing the operation to be done at home, she was admitted to the Sydney Hospital in January, 1890.

On 23rd January I performed abdominal section in the presence of my colleagues, Drs. Sydney Jones, Goode and the Resident Staff.

The incision was made well to the left along the linea semilunaris, in accordance with the theory of Mr. Tait, that the peritoneal cavity might thus escape. This case, however, proved to be an exception, owing no doubt to the fact that the fœtus had developed in the posterior layer of the broad ligament. On opening the peritoneum the omentum presented, blackish in colour, and extensively adherent to the anterior surface of the sac. It was ligatured and cut away. An incision was made into the sac in a direction to avoid as far as possible the large vessels which coursed over its surface. Several points, however, required ligature. A thick yellowish liquid, apparently a mixture of vernix caseosa and meconium, flowed out in considerable quantity. There was no odour or other evidence of decomposition. The back of the child presented. Its delivery was effected without difficulty, breech first. The placenta appeared to be incorporated with the sac at its lower and inner part in intimate connection with the uterus. The umbilical cord was ligatured close to the placenta and cut. The ligature might have been dispensed with, as circulation had ceased. The fallopian tube and anterior layer of the broad ligament were defined, forming a small portion of the sac below and anteriorly. An attempt was made to remove the sac, but its pelvic connections were so deep and extensive, in addition to adhesions to intestine and parietal peritoneum along the upper surface, that in view of the desirability of disturbing the uterus as little as possible, it was considered wise to leave it. The syphon douche was therefore used to wash the interior clear of every particle of foreign matter. A careful peritoneal toilet having also been made, the wound was closed in such a way that the sutures which brought together the abdominal walls also closed the incision in the sac, turning in the edges of the latter so that the serous surfaces were apposed, and keeping them in contact with the parietal peritoneum. No drainage tube was used.

The child measured 19½ inches, and weighed 4½ lb. It was extremely flaccid. The skin was quite soft and healthy, but was absent from a considerable portion of the back.

The pulse, after operation, was 128, but the patient did not show much evidence of shock. There was not more than an average amount of subsequent pain and vomiting, yet, notwithstanding, at 9 p.m. next day labour began. The patient was kept on the back to avoid strain on the wound, and for the same reason the forceps were applied as soon as the os was sufficiently dilated. The child was a female and cried feebly, but, in spite of every care, only lived four hours. The placenta was expelled without much hæmorrhage.

As the dressings were disturbed and the abdomen much smaller, the wound was dressed and the abdomen re-strapped.

Immediately after labour the pulse was 116, and the patient said she felt well.

On the 23rd there was much abdominal distension and vomiting, which were greatly relieved by a turpentine enema and two tumblers of hot water to wash out the stomach. The patient was nourished by zyminized suppositories.

On the 26th she took Benger's food and gruel.

27th.—Dressed wound, which looked well, except for a slight yellowish discolouration of margins. Lochia normal.

30th.—Dressed wound; removed all sutures, 13 silk, 7 horsehair. Slight redness of skin margins, but union good.

31st.—Seven days after operation—Considerable sanious, smelling discharge on dressing, but probe cannot be passed into the sac anywhere. Patient feels and looks well.

February 2nd.—Condition good, but sanious discharge continues to soak dressings. Probe passed in through third upper suture hole into a cavity (the sac); incision evacuated about half-pint of sanious pus; sac washed out with perchloride lotion, 1 in 4,000; large rubber drainage tube passed to the bottom.

After this the sac was daily irrigated with carbolic lotion, 1 in 40, and a piece of lamp wick passed through the drainage tube, so as to keep the sac as dry as possible.

The discharge gradually lessened and the sac contracted, so that she was discharged from the hospital on 17th March with merely a small sinus, which has since closed.

The diagnosis of ectopic gestation after the death of the fœtus at full term is admitted by all authorities to be attended by exceptional difficulties. Strahan says, "we may safely say that, after the death of the child (should the case be first seen then) is the most difficult period of all to make a diagnosis."

Parry makes remarks of a similar kind.

In this case the diagnosis was further complicated by the presence *in utero* of a living fœtus at the 6th month, which only careful palpation dissociated from the ectopic child, both, owing to absorption in the case of the latter, being exactly the same size, and, on a superficial examination, apparently forming one tumour. Only an accurate knowledge of the clinical history and signs of the conditions, along with patient questioning and physical examination of the woman, can save us from consequences disastrous to our patients and to our own reputations.

As regards treatment, I do not think there will be any question as to the propriety of operating. My only regret, in which the patient does not share, is that the normal pregnancy was interrupted, although I carefully abstained from in any way interfering with the uterus.

I did not use a drainage tube in the hope that I should thus avoid suppuration. Perhaps it would have been wiser to have done so, although the manner in which the sac was sutured to the abdominal walls made it possible for me to resort to its use whenever desirable. In an operation before, instead of after, fœtal death, it is evident drainage might be avoided with far greater chances of success.

At no time during the progress of the case was there any real cause for anxiety.

The patient always expressed herself as feeling quite well.

As far as I have been able to ascertain this is a unique case, in so much as there is none on record in which an ectopic fœtus has been removed by abdominal section during a super-added normal pregnancy.

At the Second Intercolonial Medical Congress, held in Melbourne, I brought forward two cases of extra-uterine pregnancy successfully treated by abdominal section.

These with the two* which I have now the honour of bringing under your notice make four which I have so far operated upon. All are now alive and well, and the two last have since passed through normal pregnancies without difficulty. In three there was suppuration in the sac; in all, the sac was the distended broad ligament; and in three there was a clear history of previous rupture of the tube. In the two last the placenta was incorporated with the walls of the sac, and is still retained without detriment to the patient.

---

* The fourth case will be published in the transactions of the third Congress.

CASE OF TUBERCULAR MENINGITIS.

UNDER THE CARE OF A. SHEWEN, M.D., LOND., PHYSICIAN PRINCE ALFRED HOSPITAL, SYDNEY.

◆

THOS. P., aged 12 years, school boy, admitted November 19th, 1892; ill three weeks before admission. First complained of pains in head; loss of appetite; irritability of temper and diarrhœa.

No tubercular history in family.

On admission.—Patient is sullen; lies on his side curled up in bed; puts out tongue if asked; keeps his eyes shut; resents having eyelids raised; has photophobia; cries when turned on his back; pupils irregular, react slightly to light; left smaller than right; no discharge from nose or ears; passes urine under him; tache cérébrale well marked. Respiration 15; pulse 60, slightly irregular; temperature 100°F.

November 21st, 1892.—In much the same condition. T. 100°. Takes food badly; fed through the nose; bowels constipated; pupils do not react to light; will not now put out his tongue when asked; knee jerk absent.

November 23rd. — Temperature 100°6; pulse 100, regular. Sensibility of right side of body much impaired; no loss of power; no perception of light; left pupil oval laterally; right pupil dilated; no reaction to light.

November 25th.—Temperature 101 S. Right pupil still more dilated.

November 26th. — Temperature 101·6 last night, 99 this morning; pulse 168; respiration 30. Patient now lies on his back; eyes more or less open. Still same insensibility of right side of body, and with it now a hemiplegia of same side; knee jerk absent, but distinct ankle clonus present.

November 27th.—Gradually sank and died today.

Post-mortem 24 hours after death.—Great venous engorgement of brain surface. On removal of brain the whole of the membranes on the undersurface were found to be glued together and distended with fluid. On the removal of these, the base of the brain and the membranes were found to be more or less covered with miliary tubercule. The ventricles, more especially the lateral, were distended with fluid.

Remarks.—This case is a good example of tubercular meningitis, and well illustrates how very localized the symptoms may be without one being able to find any explanation of it after death. There was no more tubercle or fluid on one side of the brain or the other to account for the persistent unilateral loss of sensation and the subsequent hemiplegia.

For notes of this case I am indebted to Dr. Dick.

TORNWALDT'S DISEASE AND POST-NASAL ADENOIDS.

By C. H. Smith-Hozier, F.R.C.S. Irel., of Sydney.

Under the above or some similar heading I find in most of the recently-published text-books what I consider to be an incongruous mixture of two totally distinct diseases, both pathologically and clinically. I desire therefore to try and elucidate if possible the various differences between the two diseases, so that we may be able to come to a more correct diagnosis upon which in future to base our statistics, Tornwaldt's disease being, in my mind, not so rare a disease as is generally supposed, as I have in the last few months seen and treated several cases of it.

Tornwaldt, so far as I can ascertain, was the first to describe the condition. He considered that the pharyngeal or Luschka's tonsil normally contained an opening leading into a cavity lined with mucous membrane, to which he gave the name of bursa pharyngea. That this was a constant condition he believed. The more recent investigations of Ganghofner, Schwabach and others, however, go to prove that this is not invariably the case—that there is normally a recessus pharyngeus medius in the gland and sometimes more than one cleft, but that when the gland in early life has been from some cause hypertrophied, the side walls of this depression are swollen, and meeting across the mesial line grow together, giving rise to the formation of a canal opening into the pharynx. This they consider a pathological condition. It is a suppurative inflammation of this cavity or canal, which is called from the name of its first describer, Tornwaldt's disease; and I cannot help thinking that it may frequently be mistaken for post-nasal adenoids.

Having thus reviewed the pathology I will now glance at the symptoms as compared with post-nasal adenoids. The latter is purely a hypertrophy of the normal structures already existing in the naso-pharyngeal mucous membrane. It occurs only in children, and at the age of 15 years there is a tendency to atrophy of the structure. Purulent discharge is not frequent and characteristic, but post-nasal obstruction is a frequent complication.

In Tornwaldt's disease we have a chronic inflammatory condition of a cavity or channel lined with mucous membrane and discharging a purulent secretion, which is continually trickling down the posterior pharyngeal wall, mostly in the mesial line, and entering the larynx gives rise to a chronic laryngitis, with frequent hawking, coughing, and a generally uncomfortable condition of the pharyngeal cavity. Sometimes the secretion becomes thicker and drier, and forms scabs upon the pharyngeal tonsil, and according to its first describer, gives rise to the disease termed pharyngitis sicca vel atrophica.

It occurs so far as my experience goes in adults only, and never gives rise to post-nasal obstruction. It is distinguished from an ordinary post-nasal catarrh by posterior rhinoscopy (without which of course it is impossible to diagnose the condition correctly) which will show the secretion proceeding from the recessus pharyngeus without implicating the remainder of the naso-pharyngeal cavity, except those parts bathed by the acid secretion, the roof and side walls remaining in an almost normal condition; no doubt if very long continued it will spread to neighbouring parts, setting up laryngitis, &c.

The most successful treatment I have found is the application of chromic acid on a probe to the median recess after thorough cleansing with an antiseptic. Sometimes if the tonsil protrudes much I use Gottstein's curette, and most frequently I use the galvanic curette under the guidance of the rhinoscopic mirror, removing all the diseased tissues; the parts heal up quickly, and all the previous distressing symptoms completely subside.

To sum up, therefore, adenoids are hypertrophies of normally existing strictures; only occur under the age of puberty; tend to atrophy about 15 years; purulent discharge rare and not characteristic; no cavity necessarily exists; nasal obstruction frequent.

In Tornwaldt's disease we have chronic inflammation of a pathologically formed cavity; generally or almost always occurs above the age of puberty; tends to increase and affect adjacent parts with its irritating secretion; purulent discharge present, and characteristic nasal obstruction never occurs unless by some complication.

The symptoms of this disease are frequent hawking; hacking, irritating cough; hoarseness if laryngitis is present; foul taste in breath in the morning; foul odour perceived; sniffing and sensation of a foreign body in naso-pharynx; frequently pharyngitis sisea present.

Rhinoscopy, of course, is the only method of obtaining an accurate differential diagnosis.

King-street, Sydney,
December, 1892.

PROCEEDINGS OF SOCIETIES.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Special meeting held at the Adelaide Hospital on the 15th December, 1892. Present: President (Dr. Way), Vice-president (Dr. Poulton), Hon. Treasurer (Dr. Corbin), Drs. Archer, Swift, Symons, Hayward, Brookes, Perks, Harold, Michie, A. A. Hamilton, J. A. G. Hamilton, Powell, T. K. Hamilton, Morris, Rogers, Harris, Borthwick, W. A. Giles, Marten, the Hon. Secretary (Dr. Lendon), and as a visitor Dr. McGillivray, of Melbourne.

There were no pathological exhibits.

Dr. Marten exhibited a case of hemi-atrophy.

The minutes of the ordinary meeting and of the special meeting of November 17 were read and confirmed.

The Hon. Secretary made an announcement with respect to the Bill for Amending the Vaccination Act now before the Legislative Council.

A letter from Dr. M. von Lukowitz was read and discussed. The ballot was then taken, and he was declared to be duly elected a member of the Branch.

Dr. Corbin moved, and Dr. J. A. G. Hamilton seconded, the adoption of the following report of the sub-committee on advertising :—

ADVERTISING BY MEDICAL MEN.

"In the opinion of the Committee any advertising by members of the profession should be for the convenience of the public only, and should be confined to business notices.

"They consider that legitimate advertisements are those that relate to *Starting in Practice*, *Change of Residence*, *Partnership Arrangements* and *Times of Vaccination by Public Vaccinators.* While it is not advisable as a general rule to advertise *Temporary Absence from Home* and *Return* after such absence, it may be allowable in certain cases.

"The Committee are of opinion that all advertisements should be *limited to three insertions* in any one paper, and that it should not be permissible to include in an advertisement any reference to *Qualifications*, *Place of Education*, *Past* or *Present Appointments*, *Testimonials*, *Intention to Practise in any Specialty*, or *Scale of Fees.*

"The Committee also consider that *Advertising by Card* should be discountenanced, as well as *Advertising by Circular*, except when sent to the practitioner's own private patients.

"Signed on behalf of the Committee,

"T. W. CORBIN, Chairman."

Dr. Archer moved, and Dr. Marten seconded, an amendment as follows :—"That this Branch of the British Medical Association, in accordance with the established custom of the parent Society, deprecates all advertising by its members in the lay Press."

Dr. Archer said : "I did hope that it would be unnecessary to make any remarks on the report on advertising because I thought it condemned itself. But as it has been proposed that it be received and adopted I move as an amendment : 'That this Branch of the British Medical Association, in accordance with the established custom of the parent Society, discountenances all advertising by its members in the lay Press.' I still hope to convince the gentlemen present that advertising in the daily papers is derogatory to the members of the Association and against all the established rules and ethics of the profession generally, at any rate in the old country. And first I think it without doubt advantageous that a young community should endeavour to uphold those traditions which have stood the test of time and which have helped to give the profession the standing it now has in the old country. The report says that advertising must be for the good of the public, and this is what in my opinion absolutely condemns it; for which of us is philanthropic enough to begin practice and spend money in advertising the fact and say we do so only for the good of the public? It is absurd. The public press teems with all sorts of quack advertisements, and that professional men should be willing to descend to the same means, if in a lesser degree, to attract patients is to me incomprehensible. The General Council at home has decided that advertising by dentists is "infamous conduct;" surely they would say the same of the general body of practitioners, only as advertising has been condemned from all time the necessity of doing so never occurred to them. It is, of course, impossible to stop all advertising, but that is no reason why we should sanction it."

Dr. Morris spoke in opposition to the report, and Drs. Hayward, J. A. G. Hamilton and T. K. Hamilton in favour of its adoption. Dr. Swift took exception to an omission from the report. Dr. Archer was allowed to make some further remarks, after which Dr. Corbin replied.

The amendment was put to the meeting and lost, six voting for it and 10 against it.

The adoption of the report was carried, 13 voting for it and six against it.

Dr. Symons then read his paper on "Cocaine," which was discussed by Drs. Corbin, T. K. Hamilton and the President.

NOTES ON COCAINE.

By M. J. Symons, M.D. et Ch.M. Edin.

Coca has been known in South America from the earliest times, probably discovered by the aborigines to possess the virtue of warding off feelings of fatigue. A Spanish physician about the middle of the fifteenth century described its uses as—1. It was chewed and mixed with the powder of calcined shells and oysters or other shellfish ; this paste, after being allowed to ferment, was formed into boluses and dried. During long journeys these boluses were sucked, and under their influence hunger and thirst were alleviated and bodily strength was sustained. 2. It was eaten by itself to produce pleasurable feelings or intoxication ; 3. It was mixed with tobacco and smoked. Coca continued to be utilized by the Indians, and engaged the attention of many travellers.

Markham writes : "I chewed coca, not constantly, but very frequently; and besides the agreeable soothing feeling it produced, I found I could endure long abstinence from food with less inconvenience than I could otherwise have felt, and it enabled me to ascend precipitous mountain sides with a feeling of lightness and elasticity, and without losing breath."

Though extensively employed in Peru, we do not find it officially in the Pharmacopœiæ, and the drug was otherwise left in oblivion until in 1860, Albert Niemann, of Goslar, isolated the alkaloid from the leaves of the *Erythoxolon Cocoa*, gave it the name of cocaine, and noted that cocaine applied to the tongue produced anæsthesia thereof. Two years later Schroff found that it produced temporary mydriasis. In 1874 Hughes Bennett drew attention to its anæsthetic properties, and in 1876 Dr. Ott showed that it dilated the pupil. Ten years later Dr. Karl Köller, of Vienna, demonstrated its action on the eye. He had been long aware that cocaine acted as a local anæsthetic on the larynx, and it occurred to him that it might act similarly on other mucous membranes. At the Ophthalmological Congress at Heidelberg, in September, 1884, a paper read by Brittauer extolled its value. There dawned a new era in eye work, and the use of cocaine became the common practice.

According to Dr. Köller the following effects are produced by the installation of a 2 per cent. solution of cocaine: One or two minutes after introducing a few drops of the solution, the cornea and conjunctiva are rendered completely insensible, so that considerable pressure can be exerted on the cornea, the patient feeling nothing and showing no reflex movement, and the conjunctiva could be seized with forceps without feeling. The anæsthesia lasted from seven to 10 minutes, and gradually disappeared. Simultaneously with the anæsthesia considerable dilatation of the palpebral orifice occurred. This he explained by the absence of the sources of irritation which otherwise affect the cornea and conjunctiva. The ocular and palpebral conjunctiva becomes anæmic from four to 15 minutes after the installation mydriasis sets in. It was never present in any great degree. After one hour it decreased considerably, and totally disappeared some hours later. During this period the pupil reacted quickly. Paresis of accommodation set in together with the mydriasis, and also disappeared with it. When the application was continued and repeated every five minutes the anæsthesia of the cornea afterwards lasted from 15 to 20 minutes, and the deeper parts of the eye became anæsthetic, its sensibility being much diminished on pressure. The application never produced any signs of irritation

Dr. Walter Jessop found the physiological action on the eye to be as follows: Local anæsthesia, mydriasis, contraction of small arterioles, paresis or palsy of the accommodation, slight diminution of the intra-ocular tension, enlargement of the palpebral fissure, slight proptosis and flaccidity of the cornea. The hydrochlorate was the salt used in 2 or 4 per cent. solutions.

He found it advisable to cocainize both eyes when operating on one eye, so as to avoid the great straining induced by the difference of sensibility in the two eyes, the other eye either being bandaged or some oleaginous compound being used to it to prevent the cornea being exposed to external influences. The great use of cocaine is to induce local anæsthesia. He used it in all ordinary operations, and no other anæsthetic was required, except in excisions and tentotomies in young people and in very nervous subjects.

Jessop's investigations led him to the conclusion that cocaine is an irritant to the sympathetic nerve of the eye in bringing about mydriasis, acting on the terminals and not through the third nerve. The pupil still acted to light and accommodation. He believed that cocaine acted on the vessels of the iris as well as the conjunctiva, contracting the small vessels, and that this would account for the diminution of tension.

Dr. Königstein stated that even the surfaces of the eyelids entirely lose their sensitiveness when cocaine hydrochlorate is applied in its solid form.

Dr. Lucien Howe writes that two drops of a ·02 per cent. solution is sufficient to produce a noticeable difference in the size of the pupil, but twice this quantity is the least which will affect the sensibility materially. If a .2 per cent. solution be used, the effect at the end of about 15 minutes does not differ materially from that which follows the use of the same quantity of a 4 or 5 per cent. solution.

Anæsthesia appears in from two to six minutes after a full dose. The maximum is reached in 15 minutes, and in 30 or 40 minutes it commences to subside. When the cocaine has been once applied, subsequent applications apparently act with more rapidity than at first. The anæsthesia precedes the dilatation of the pupil. The latter continues for some hours after the former has disappeared.

Dr. Benson found that the anæsthesia came on almost immediately after the application, lasting five or six minutes, when it gradually but rapidly faded away. In nearly all cases there was T + 1, which diminished and disappeared before the pupil regained its normal size.

Brudenell Carter says a solution of cocaine in distilled water soon becomes turbid and discoloured and the sub-conjunctival injection of such a solution for squint operation was followed by acute suppuration of the orbital connective tissue ; he then used a saturated aqueous solution of salicylic acid as a solvent, the resulting liquid keeping bright and clear, and giving no trouble. Distilled water takes up about $\frac{1}{780}$ part of its weight of salicylic acid, and in this solution 10 per cent. of cocaine hydrochlorate may be easily dissolved.

However it may be applied to the surface of the eye, its immediate effects are temporary anæsthesia, mydriasis, diminution of superficial blood-vessels, and it abolishes the excessive lachrymal secretion which is produced by a local irritant when sensation is unimpaired.

In iritis it diminishes surface congestion and increases the comfort of the patient ; it is an aid but not a substitute for atropine and morphia.

It should not be applied in cases of destructive corneal ulceration, especially in old and feeble people and in cases of injury attended with little vascular reaction, as it diminishes the calibre of vessels and is thus antagonistic to repair. He has seen the complete peeling off of the corneal epithelium in a cocainized eye ; no bad consequences follow, as the epithelium is speedily renewed. Cocaine is absolutely contra-indicated in all cases of glaucoma, except perhaps just before operation.

Nettleship first used cocaine in October, 1884. He found that its anæsthetic action did not vary in patients of different ages ; he was not satisfied that even a free use of cocaine reduced the sensibility of the iris. Relief is generally given in a few minutes in cases of corneal ulcers ; a larger quantity of cocaine is required in severely congested eyes than in health. The relief of photophobia by cocaine shows how important is hyperæsthesia of the fifth nerve as a factor in "intolerence of light." As a mydriatic cocaine is less convenient than atropine, because the pupil will still contract a good deal when brightly lighted.

He found it difficult to satisfy himself that cocaine produced contraction of the superficial blood-vessels of an inflamed eye, as it does in a healthy eye.

A decided retraction of the *upper* lid usually comes on in three to five minutes, but the *lower* lid does not alter in position. The pupil seems sometimes to contract a little about three minutes after application ; it begins to dilate in five to twelve minutes. A single application of an extremely small quantity of eserine a few minutes after maximum mydriasis produces myosis and ciliary spasm as quickly and completely as if no cocaine had been used, even when cocaine has been repeatedly used. The accommodation is scarcely affected by a single application of cocaine, but if used every five minutes for an hour it is completely destroyed, lasting about 15 minutes. Tension is not sensibly altered by cocaine.

In the clinic of Graefe, at Halle, the application of cocaine has in a few cases apparently been the cause of mischief to the eye. This was of three kinds, viz., destruction of the corneal epithelium, vesicular eruption on the cornea, and parenchymatous changes with considerable opacity of the corneal tissue.

In the case of three elderly persons about to be operated on for senile cataract, the use of a three per cent. solution of cocaine at short intervals during a period of 15 minutes was found to have caused a destruction of epithelium in the central area of the cornea ; the denuded surface was perfectly transparent and devoid of sensibility. The epithelium was regenerated in the course of a day or two.

In a vigorous man of 60 the cocaine produced no immediate ill effects, but on the sixth day, when the cornea was inspected for the first time after operation, the lower two-thirds was found to be covered with five vesicles ; by the end of the second week the vesicles had somewhat increased in size and some of them had ruptured, and not until the end of five weeks did the condition of the cornea decidedly improve.

In six cases out of 150 operated upon there was parenchymatous opacity of the cornea in the form of vertical lines, most dense at the region of the wound and disappearing near the opposite margin of the cornea. The surface of the cornea showed numerous slight irregularities in the form of elevations and depressions, not amounting, however, to a formation of vesicles. The opacity was so pronounced that the opaque cornea hardly admitted more light than the opaque lens had previously done.

Pflüger states that in his experience cocaine is not in all cases harmless ; that a two per cent. solution may abolish corneal sensibility for much longer than the desired time, and in this way induce serious disturbance of its nutrition. In a weak subject, aged 67, he performed iridotomy. The wound healed perfectly and the opening remained black and clear. At the first dressing on the fifth day the eye showed no sign of irritation. Two days later pain and circum-corneal injection began, and a typical neuro-paralytic keratitis developed. The cornea and conjunctiva were completely insensible and the tension greatly reduced ; the cornea showed vertical stripes of opacity. By the use of the constant current sensibility was restored, and on the 20th day the patient was discharged with a clear pupil and a nearly clear cornea.

A second kind of risk is that of a general toxic effect. Knapp noted two cases in which the introduction of from 0.3 to 0.36 gramme of a solution was followed by prostration, pallor, cold perspiration, and thirst.

Stevens relates a case in which the application of 0.5 gramme of a four per cent. solution produced unconsciousness and convulsions in a healthy male. Mayerhausen states that a little girl of 12 complained of headache, irritation of the neck, and nausea ; her face became pale and her speech indistinct after the application of 15 drops of a two per cent. solution.

Many cases are recorded in badly nourished subjects in which the same group of symptoms occurred in all, prostration, vertigo, perspiration, vomiting and metiorism occurring in one and a half to two hours after operation, in some instances with pain in different parts of the body and tremor of the limbs.

Wurdinger, of Munich, in his experimental researches found that the application of a few drops of a five per cent. to both eyes at four minute intervals, one eye remaining open the other closed during the intervals between the applications, the exposed cornea began to show superficial changes at the end of the first three or four minutes, and in 20 to 25 minutes its whole surface presented a rough but glistening bluish appearance with depressions which resembled loss of epithelium, but which, even where deepest, were not actually raw. At the end of an hour the opacity was so considerable that the iris was no longer distinctly visible. In the closed eye, on the contrary, the cornea remained smooth, bright, and transparent. Further experiments showed that the intensity of the corneal changes depended less upon the frequency of the application or the concentration of the solution than upon the duration of the whole experiment ; that moistening the surface with tears or distilled water hindered the further increase of the changes ; that staining solutions only affected the anterior layers in the non-cocainized eye in slight degree and evenly throughout ; while in the cocainized eye where the cornea had become roughened the colour appeared in the deepest parts and became intense throughout the parenchyma of the cornea ; and that this was especially marked in the presence of an abrasion of the anterior epithelium. Microscopical examination showed that there was shrinking of the true corneal substance as well as thinning, flattening, and shrinking of the anterior epithelium. There was excrosis of the cornea, caused by diminution of the lymph supply, supplemented by evaporation. That the same changes in the cornea may be produced without direct contact by subcutaneous injection of the cocaine solution ; that weak solutions of corrosive sublimate, borax, boracic acid, or even common salt, though harmless to the normal eye, were apt, when the eye was energetically treated with cocaine, to cause a more or less intense opacity of the cornea.

Mayerhausen, of Fielburg, found 0·005 gramme applied to the sac in a girl of 12 years produced immediate headache, followed by irritation of the throat and great nausea, with some temporary paralysis of the tongue, lasting 24 hours.

Stevens found spasm and loss of consciousness in a healthy male subject after using seven or eight minims of a four per cent. solution.

Ballyarminoff, of St. Petersburg, had five cases in elderly, more or less emaciated, females where the use of a four per cent. solution in various eye operations was followed by headache, vertigo, nausea, vomiting, delay in healing of the corneal wound, and in some instances by keratitis. It was afterwards found that a two per cent. solution was well enough borne by the same patients.

Theobald, of Baltimore, writes that once cocaine was accused of causing panophthalmitis and other unfavourable results in eye operations, causing much misgiving in the minds of those using it. Soon, however, the testimony in its favour accumulated and speedily assured its position as a valuable drug, and everywhere its value was regarded as inestimable in ophthalmic surgery.

It has its defects and shortcomings in cataract operations, it rendered the cornea so hard as to render a section through its periphery more difficult. In squint operation it is said to cause contraction of the muscle, rendering it more difficult to cut the tendon properly.

It does not dispense with the aid of an assistant in such operations as iridectomy, as the amount of feeling in the iris does not allow the patient to quite control himself, this being the only painful part in the operation for cataract ; however, the danger here is less than that of nausea and vomiting from a general anæsthetic.

It has been recommended as a substitute for atropia duboisia and homatropin as a paralyser of accommodation in testing errors of refraction because of the evanescent character of action upon the pupil and ciliary muscle ; there is this against it, that its drying or contracting action on the epithelium of the cornea will lead to an irregular astigmatic condition of the eye rendering accurate measurements impossible.

As far as I can ascertain cocaine found its way into South Australia early in April, 1885—then at a cost of 2s. 6d. per grain to the importer. It was in the hands of the late Dr. Charles Gosse on the 4th of that month. He said of cocaine :

"I cannot speak in too high praise of it." To-day, gentlemen, I can only echo the words then uttered. I have used it very freely in various strengths—1, 2, 4, 5 and 10 per cent.—and have long felt that everything required of the drug in eye work can be obtained from a 2 per cent. solution, which I now invariably use. In most cases it sufficiently enlarges the pupil for examination of the fundus ; it sufficiently anæsthetizes the exposed tissues for ordinary operation thereon. I have not met with any untoward effects from its use in major operations, but in these I only employ a freshly-prepared solution. I have three times—very infrequently—met with shrinkage of the anterior corneal epithelium, requiring no special care beyond the protecting bandage and lasting only a few hours. In one case only were there urgent symptoms which can only be attributed to idiosyncrasy. In this case the use of a 2 per cent. solution with boric acid was accompanied with a very marked reaction previous to painting a trachomatous eyelid with a nitrate of silver solution. The patient, aged 39, a healthy man of rural pursuits, was lying on the couch. A few drops of a 2 per cent. solution were instilled into the *right* conjunctival sac. I turned to dip my hands in the water basin, but was interrupted by the sound of a succession of lusty sneezes emanating from the adjacent couch. Turning to the patient I found his upper and lower lids on the right side swollen very considerably. Both, especially the upper, were red, glistening, tense and closed. With difficulty they could be separated to a small extent, but sufficiently to show that the ocular conjunctiva was likewise highly œdematous and the cornea steamy. It was then noticed that the untouched left eyelids were similarly affected, but to a a lesser degree and more to the inner canthus than elsewhere, though none of the solution reached the left eye to my knowledge ; the patient arranged to go away and return in four hours. In the meanwhile I obtained a freshly-prepared 2 per cent. solution with boric acid. When seen at the later period the lids had returned to their normal condition. One drop of the fresh solution was carefully instilled, and in the space of half-a-minute the previous chain of symptoms commenced. The patient sneezed violently five times, copious watery secretion flowed from the eyes and nostrils, the lids and conjunctiva became highly œdematous, and later and without pressure the tears became tinged with blood.

The patient, an intelligent and observant individual, gave the following account of his symptoms : " At first a *drawing* feeling about the top eyelid immediately followed by a copious flow of water from both eyes and nostrils ; violent sneezing then ensued (four times, I think), and I noticed a *full* and somewhat *tingling* sensation about the face generally, also behind the ears. After the sneezing was over the eye to which the drug was applied became much *swollen*, felt exactly like a *bunged eye*, and was completely closed in less than one minute after the application."

I have several times seen the pure salt spooned over the conjunctival surface of the upper lid to obtain anæsthesia during a painful operation thereon. I have frequently performed the same operation using a 2 per cent. solution only, and apparently obtained as complete a freedom from signs of pain as followed the use of pure cocaine.

The outcome of my experience in the use of cocaine is that I never use any stronger than a 2 per cent. solution. Of all the antiseptics a saturated solution of salicylic acid is the most reliable. This, kept in a blue bottle, will remain clear for many weeks, and will fulfil all the needs of a safe, certain, local anæsthetic in eye work.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

THE 104th general meeting was held at the Royal Society's Room, Sydney, on Friday, 2nd December, 1892. Present: Dr. Fiaschi (in the chair), Drs. Edwards, MacSwinney, Knaggs, Scot Skirving, Clubbe, E. F. Ross, Hankins, Crago, Chambers, A. Jarvie Hood, Cohen, Coutie, Quaife, G. A. Marshall, West, Hood, Paton, MacMurray, McKay, Jenkins, Brady, Huxtable, Power, Rutledge, Thomas, Lennhoff, H. H. Marshall, Langhorne, Thos. Dixson, Kenna, J. A. Dick and Pilkington ; visitor, Dr. Frizell.

The minutes of the previous meeting were read and confirmed.

The **CHAIRMAN** announced that the following gentlemen had been elected members of the Branch :—Dr. Walter Lyon, Granville ; Dr. A. Maitland Gledden, Sydney ; Dr. James Dick, Randwick ; Dr. Scott, Penrith.

DR. MACSWINNEY exhibited a patient suffering from dyspnœa and explained the case.

DR. SCOT SKIRVING said he would not like to give a decided opinion in a case such as this, especially as the examination must of necessity be a very short one. It might be interesting to Dr. MacSwinney to know that there is a record of four or five cases similar to this mentioned in one of the English provincial medical journals. One or two of them most like this one were thought to be habit spasms. He (Dr. Scot Skirving) would suggest that the patient be placed under chloroform and an examination then made.

DR. E. F. ROSS said he quite agreed with what Dr. Scot Skirving had said. It is quite possible this is a hysterical condition, and the patient should be examined under chloroform.

DR. MACMURRAY exhibited a case of nævus pilosis and read the following notes :—" I thought this case of congenital skin abnormality, which occurred in my practice, would be of interest to you. The condition is known as *Nævus Pilosis*. It consists of hypertrophy of all the layers of the skin, but chiefly the pigment and hair. At birth it was seen as a small liver-coloured patch the size of a penny over the centre of the area at present affected. The hair commenced to grow on its surface at nine months. There is no history of any family predisposition to this condition. From a psychological point of view the case is interesting, as the condition is attributed by the mother to a mental impression received by a retriever dog jumping on her abdomen when she was between six and eight months pregnant, giving her the idea before birth that the child would be marked."

DR. CHAMBERS read some notes of a "Case of Ovariotomy Complicated with Pregnancy."

A CASE OF OVARIOTOMY DURING PREGNANCY—RECOVERY.

By THOMAS CHAMBERS, F.R.C.P. ET F.R.C.S. ED., SENIOR GYNÆCOLOGIST SYDNEY HOSPITAL; AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN, UNIVERSITY OF SYDNEY.

◆

MRS. W., *æt.* 40, has had nine living children. The eldest is 18 and the youngest three years of age; has always had good health. The menstrual periods were regular up to three months ago, when they ceased, followed in due time by morning sickness. These facts convinced her that pregnancy existed, and when admitted into hospital on the 25th June of last year she supposed herself to be advanced about three months. She first noticed a lump on the right side of the umbilicus about two years ago, which was more or less movable. It gradually increased in size, especially during the last six months. She has always lived in the bush, and has habitually been supplied with water from an open well, to which dogs and cattle have had free access.

On admission the patient was not only well nourished, but the abdominal walls contained a great excess of fat. Her abdomen was much distended with a large tumour which occupied the right side, extending from the umbilicus upwards to the under surface of the liver so closely that no line of demarcation could be made out. From the umbilicus downwards no trace of the tumour could be found, due perhaps to the excess of fat deposited in the abdominal walls. Per vaginam the cervix uteri was shortened and softened to a much greater degree than is usually found at the third month of pregnancy. The cervix was pushed over to the right side, while the uterine body, which was very large for the third month, was pushed over to the left side. The bimanual method was practically negative in consequence of the excess of fat stored up in the abdominal walls. No form of tumour growth could be made out below the umbilicus; urination satisfactory, and bowels relieved daily without medicine. The abdominal measurement at the umbilicus was 41 inches; urine free, specific gravity 1020, slightly acid, no albumen or sugar. The mammary changes were well marked, especially on the right side. The tumour surface was perfectly smooth and uniform except at one point, where there appeared a kind of bulging of moderate dimensions. Its moderate mobility implied that it had in all probability formed numerous adhesions. No distinct fluctuating thrill could be recognized; nevertheless it was believed to contain a considerable quantity of fluid within a firm cyst wall.

The diagnosis was certainly obscure. The history of the case, the corpulence of the patient, and the position of the tumour were suggestive of hydatid rather than of ovarian disease; and this suggestion was rather strengthened than disturbed by a careful examination conducted while the patient was under anæsthetic influence.

On the 4th of July I opened the abdomen by an incision two inches to the right of the median line and midway between the umbilicus and the lower border of the ribs, cutting through three inches of fat before reaching the muscles. When the peritoneum was opened the tumour at once presented itself at the bottom of the wound, and by its colour and vascularity was immediately recognized to be of ovarian origin, its vascularity suggesting rotation and adhesions. Fifty ounces of muddy-looking fluid passed through the trocar, which looked like pus, but on examination the colour was found to be due to the presence of fat cells and cholesterin crystals in great excess. Besides this fluid the cyst contained some pounds of a soft substance which closely resembled mortar mixed with short black hair in considerable quantity, clearly pointing to the dermoid character of the cyst. The cyst had contracted numerous omental adhesions, which were separated and the bleeding points secured with catgut. When the cyst was withdrawn the pedicle was found to be twisted, implying that the tumour had rotated one-and-a-half times on its axis. When the pedicle had been secured and dropped into the abdomen, the uterine fundus was seen in the median line within an inch of the umbilicus —about the size of a five months' pregnancy. It was afterwards ascertained that the last two periods were of shorter duration and the quantity lost was much less than usual, so that it is reasonable to infer that the periods had appeared twice after impregnation had taken place. A long glass drainage tube was placed between the uterus and the sacrum, the wound closed in the usual way, and the patient removed to bed.

July 5, 9 a.m.—Patient has passed a fairly good night; complained of back ache with grinding pain like the early pains of labour. This was attributed to irritation caused by the drainage tube, but as the drainage was yet too free to admit of the tube being withdrawn, a suppository was passed into the rectum, which modified the back ache considerably; pulse 120; temperature 99.

July 6, 9 a.m.—Has passed a bad night; sickness almost continuous; nothing can be taken by the mouth without exciting urgent vomiting. The small intestines are coiled together in the upper third of the abdomen distended with gas, which keeps up continuous irritating pressure on the stomach and diaphragm, exciting continuous vomiting and diminishing the respiratory capacity of the chest. The pelvic pains are frequent and somewhat severe; abdomen much distended and acutely sensitive to the slightest pressure; the facial expression painfully anxious; pulse 124; temperature 100; respiration 36. The patient's condition appears critical. The drainage tube was withdrawn, which relieved pelvic irritation. The next most important indication was to relieve the bowels and restore their peristaltic action as quickly and as thoroughly as was consistent with safety, and here was a real difficulty.

The vomiting was so urgent and continuous that any attempt by ordinary methods in that direction was worse than useless. Enemas of various compositions had already been frequently repeated without any result, and on passing the finger the bowel was found quite free from any accumulation and from local pain. It was clear that the difficulty was in the upper portion of the intestinal canal, and to waste time in repeating useless enemas at such a crisis appeared like folly of the worst type. I therefore put on the tongue 10 grains of calomel, and ordered two drops of croton oil on the tongue in two hours if necessary.

When I saw the patient six hours later the bowels had been freely relieved twice, and she had passed flatus freely in the interval. The abdomen was less distended and comparatively soft and painless. The vomiting had practically ceased, and fluid food could be taken in small quantities and retained with comfort.

July 7, 9 a.m.—Passed a quiet peaceful night, sleeping well for seven hours; feels in all respects greatly relieved; can take fluid food very well. Vomiting, pelvic discomfort and back ache have passed away. The only annoyance now is fœtal mobility; pulse, temperature and respirations but little above normal; urine pretty free; specific gravity 1024, acid, no albumen or sugar.

From this time the patient progressed satisfactorily in all respects save in moderate vascular tension. The pulse kept up to 100 for several days. The temperature soon fell to the normal line, her appetite improved, and she slept well eight or nine hours in the 24.

On the eleventh day she was taken back to the ward. After her arrival there she had a return of her back ache, which was relieved by hypodermic injection of morphia. After the bowels had been well cleared out by the calomel and croton oil they were kept going by the ordinary white mixture. The movements of the child were pretty free while she remained in hospital, but there were no further indications of uterine pains.

Remarks.— In offering a few remarks on this interesting and instructive case, I may observe that the diagnosis as to the precise nature of the growth was in accord with the history of the case, as taken by Dr. Armstrong, which, if carefully considered in conjunction with the physical signs already recorded, it will scarcely be a matter of surprise that such an error was committed. During the 30 and more years that I have been engaged in gynæcological work I have not seen an ovarian tumour presenting such physical signs as characterized this case.

But the more important part of this case has reference to the after treatment. When ovariotomy was revived after the introduction of anæsthetics more than 30 years ago, it was the routine practice to administer opium after abdominal section—a practice which has been continued by some of the best operators up to very recent days. The object of this routine practice was twofold—to relieve immediate pain and to keep the bowels quiet for a week more or less. As a result of this practice of closing up the bowels (as I now believe) many deaths took place from what was called peritonitis. The leading symptoms in such cases were great distension, acute abdominal pain, continuous vomiting, collapse and death.

I have, during the last decade, recognized two forms of obstruction to which patients who have been subjected to abdominal section are exposed, depending on different causes, occurring at different times, and affecting different portions of the intestinal tract, which may, perhaps, be called the acute and chronic stages. Of the former I have seen several instances, while of the latter I have seen but one. The first is confined to the upper portion of the intestinal canal, and usually shows signs of its approach within 40 or 50 hours of the operation (often sooner) and if not recognized and overcome, the patient will certainly die within a week, notwithstanding the temporary and misleading remissions of some of the more urgent symptoms occasionally observed.

The first sign observable is considerable distension immediately below the ensiform cartilage, very sensitive to pressure, accompanied by a dry, raspy tongue, urgent thirst, constant vomiting, and great facial anxiety. The pulse is often frequent and without power, 120 or more; temperature moderate, 100 to 101; respirations about 36, and due mainly to the imperfect descent of the diaphragm; but it is quite certain that the temperature may be subnormal while the obstruction continues. In most cases the vomiting of dark green or porter coloured fluid is so urgent as to forbid the hope of any form of medicine being retained in the stomach, while in others there may be a fair tolerance of aperient salines. Passing the finger into the rectum it is found quite empty as far as the finger can reach, and free from pain in every direction, clearly implying that the cause of the symptoms is not in the pelvis. The rectum tube may be kept in position, but no intestinal gas escapes, and aperient enemas of various kinds may be again and again repeated, but they return almost immediately without fœcal stain or intestinal gas.

Now, what is the cause of all this disturbance? How is it induced and what are the indications? Direct observations, derived from secondary incision and from *post-mortem* examination, very clearly show that large coils of the upper portion of the small intestinal canal become closely pressed together immediately below the ensiform cartilage, distented with gas, bent at acute angles, and more or less closely adherent to each other. These conditions readily explain the continuous vomiting from the mechanical pressure to which the stomach is exposed, and the increased and shallow respirations from the imperfect descent of the diaphragm.

What are the causes leading to this peculiar state of things? I am inclined to regard them as two-fold. (1) The shock, which in all cases of abdominal section is more or less marked; and (2) the manipulation and exposure of the abdominal contents, which cannot always be avoided. These give rise to temporary paralysis of the intestinal tube, and to more or less complete annihilation of peristalsis, leading on to complete obstruction in a very short time if downward peristaltic action cannot be restored and the compressed intestinal coils set free. In urgent cases this cannot be attained by the ordinary methods, either by the mouth or rectum, inasmuch as the stomach is too irritable to retain any of the ordinary forms of aperient medicines, even in small doses, and the rectum is useless, as neither fluids nor gas can reach the seat of obstruction.

How then are such cases to be managed in order to avoid such urgent symptoms? I submit that, in all cases of abdominal section where the abdominal contents have been long exposed or much manipulated, it is of the first importance to flush the peritoneal cavity with simple hot water, or salt and water, if there has been much hæmorrhage, at about 105. This has the threefold advantage of restoring the abdominal temperature, stimulating the peripheral nerves and permitting the intestinal coils to float about and so unfold any twisting which may have taken place, and permitting the intestinal coils to arrange themselves and settle down into their normal position. It is not necessary to remove all the fluid if perfectly clean. On the contrary, a portion may be left behind with advantage, and what is not taken up into the circulation will readily escape by the drainage tube. This I regard as an important prophylactic measure where the operation has been prolonged, or where much manipulation has been necessary.

But if, notwithstanding these precautions, acute obstruction should occur, such as I have already noticed, what are the indications? Clearly to restore the peristaltic action of the bowel, to unfold its coils, to separate adhesions which may have already formed, and to sweep out the intestinal contents through the rectum. But these indications admit of no vacillating or half-hearted measures, the time to act is now or never. Where the intestinal canal cannot be approached by any other means in consequence of continuous and urgent vomiting I put 10 grains of calomel on the tongue, which readily adheres to the mucous membrane of the mouth and laughs at vomiting, however urgent; and if no effect is produced in two hours or so a drop or two of croton oil are dropped on the dry tongue, which are readily absorbed. Usually in two or three hours there is considerable rumbling, and sometimes much stretching and discomfort in the distended portion of the intestinal tube; and presently gas and fœcal fluid matter escape per anum, repeated three or four times, perhaps, in the course of as many hours with the greatest possible relief to the more urgent symptoms. In a few hours, more or less, nausea and vomiting gradually diminish, the abdomen, hitherto greatly distented and exquisitely painful, becomes softened, the pressure pain disappears, and fluid food can be taken moderately. If this course is adopted before the adhesions are too firmly formed, I have seen the most satisfactory results in the majority of cases, but not in all, immediately.

Now, we may ask, what has happened to bring about such satisfactory results? Well, the downward peristalsis has been restored, the over-distended and temporally fixed intestinal coils have been opened out, the obstruction removed, the bowel contents, including an immense quantity of offensive gas, have been swept out, and the pressure upon the stomach and diaphragm relieved.

Hence the vomiting ceases, the respirations become deeper and less laboured, the pulse diminishes in frequency but increases in power, the temperature falls to the normal line or below it, and in a day or two the patient is transformed from a condition of great suffering and danger to one of comfort and comparative safety. Such results, I submit, fully justify the means, however heroic they may at first sight appear.

I may, perhaps, in conclusion, be permitted to remark that a fairly long and varied experience has forced upon me three main rules for my guidance in the after treatment of abdominal sections. (1) In all cases to put in a drain tube as a precautionary measure, to be removed as soon as circumstances permit. This is not a personal fad, or from a desire to appear peculiar, but the result of careful clinical observation, and if time permitted or circumstances rendered it necessary, I could adduce most satisfactory reasons for this course. (2) To relieve pain, not by the routine administration of opiates, but by the judicious hypodermic injection of morphia, one-eighth or one-sixth of a grain is sufficient at once, to be repeated when necessary. In small doses morphia is usually well borne, and less than a grain is sufficient on an average for each case. (3) I am now certain that it is essential for the patient's comfort and well-being that the bowels should be relieved daily from the first. Hence it is my usual practice to have a glycerine enema administered the morning after the operation and repeated daily, with an occasional dose of white mixture. In the majority of cases this is sufficient for the first few days, if not I am guided by circumstances.

The second or chronic form of obstruction usually occurs in the neighbourhood of the stump of the pedicle at a much later period, and as it occurs much less frequently than the acute form and does not just now particularly interest us, its discussion may be deferred to a more convenient opportunity.

I must now thank you, gentlemen, for your courteous and patient attention.

P.S.—Her family medical attendants, Drs. Smith and Parry, of Murrumburrah, have informed me that this patient was delivered on November 3rd, at full term. The confinement was the most satisfactory in her experience. "Mother and child both well."

Dr. E. F. Ross said he felt personally very thankful to Dr. Chambers for his very exhaustive paper on this case. There were two points he would like to speak about—1st, the diagnosis of ovarian tumour complicated with pregnancy; 2nd, the after treatment, more especially with regard to the use of the drainage tube. He (Dr. Ross) remembered assisting at a case of this kind. The patient was a very delicate woman. After the operation no drainage tube was used, and the bowels were kept open by the administration of the ordinary white mixture.

Dr. McKay said in cases where tumour is diagnosed during pregnancy operation should always be resorted to. Dr. Thornton says that where the tumour is left there is about 15 per cent. of miscarriages, and frequently you get ruptured vagina, or the cyst ruptured, or some other complication. If operation is determined upon, the operator should be very careful not to mistake the uterus for the tumour. As to the use of drainage tubes in these cases he (Dr. McKay) is entirely in favour of them. The use of opium is almost given up in such cases. With regard to the question of adhesions, if by any chance the intestine is allowed to get dry and opium is given, there are sure to be adhesions.

Dr. Huxtable said this paper is of more than ordinary interest, inasmuch as it deals with the use of purgatives in certain cases. He (Dr. Huxtable) remembered two cases of perityphlitis wherein he used purgatives freely with beneficial results, and what Dr. Chambers had stated had certainly strengthened his opinion in the free use of purgatives in certain cases.

Dr. Fiaschi said that he had listened with very great interest to Dr. Chambers' paper, and was sure the members generally had been benefited by his masterly treatment of the matter, as the light thrown upon this operation and the after treatment of such cases was of the clearest description. He (Dr. Fiaschi) must certainly congratulate Dr. Chambers.

Dr. Chambers said he begged to thank Dr. Fiaschi for his kind words and appreciation. With regard to the use of the drainage tube, this is no mere fad, but the outcome of much experience; there are no doubt many who do not use it, but there are also many who do, and who believe in it thoroughly. He (Dr. Chambers) well remembered one case, and Dr. Hull would bear him out, where if a drainage tube had not been used the patient would certainly have died. All operators are liable to be troubled with drainage, and he (Dr. Chambers) makes a practice of always using a drainage tube.

Mr. G. T. Hankins read some notes on a case of gunshot wound in the abdomen, and exhibited a diagram illustrative of the course of the bullet.

Dr. Chambers said he was assisting Mr. Thomas Barnes on one occasion when he remembered the opening had to be enlarged, and a pair of scissors was used for the purpose, and Mr. Barnes, although he had made an examination with the finger, still in cutting with the scissors he nearly severed an intestine. Still with this caution fresh in mind he (Dr. Chambers) on one occasion, about three years after, was operating and needed a little more room for more effective work made the opening a little larger with a pair of scissors; all apparently was alright, and the opening was about to be closed up when he found a little difficulty, and upon further examination he found that the bowel had almost been cut through. The bowel had been adherent to the wall, and had not been recognized. It is a very easy matter, and he would advise that where an opening has to be enlarged always cut down, and use the knife instead of the scissors, then you see what you are about and do not run the same risks.

Mr. Hankins read some notes on a "Case of Encysted Vesical Calculus," and exhibited the specimen.

EXHIBITS.

Dr. Jenkins exhibited some specimens for Dr. Jamieson, and read the following notes :—

1.—A very good example of that error in development of the uterus which results in the formation of the uterus bicornis unicollis.

There is also seen in this specimen a pedunculated polypus on the posterior vaginal wall. This is, in all probability, a rudiment of the primitive vaginal septum, which has persisted, become enlarged and pedunculated.

With reference to the sexual history of the case I know nothing; but the os uteri is obviously that of a multipara.

2.—A uterus and tubes, showing very well the condition of double pyosalpinx, with perimetritic adhesions.

3.—A piece of ascending colon, together with the cœcum, vermiform appendix, and portion of ileum, from a boy, aged 16 years, who died of malignant stricture of the bowel.

The stricture was so tight that it scarcely allowed a stream of water to pass.

The cœcum and vermiform appendix were found to be enormously distended with fluid fæces, and on the walls were found a few follicular ulcers.

The growth extends all round the circumference of the gut, and involves the mucous, submucous coats, and muscular coats.

Some enlarged glands are also seen in the neighbourhood.

Microscopically, the mass consists of a delicate fibrous tissue stroma, enclosing spaces of varying size, containing masses of colloid matter, together with nests of epithelioid cells.

Dr. Edwards exhibited a new form of Electric Light and explained the mode of use and structure.

Dr. Power read the following paper on

PERFORATING ULCERS OF THE SEPTUM NARIUM.

By J. J. Power, M.B. *et* Ch.M. Dub., of College-street, Sydney.

During the past few years I have had under my care several cases of perforating ulcer of the septum of the nose, so I thought it may somewhat interest the society if I were to give a more or less general resumé of the cases *en masse*, giving prominence only to such points as seemed to me interesting and important.

The perforating ulcer of tertiary syphilis is well known to you all, so I need make no more than a passing reference to it. Its course is more or less rapid; still you have some time to consider your mode of treatment.

The perforating ulcer of the secondary stage of syphilis to which I would particularly direct your attention is a very much rarer form of the disease, and is, in my opinion, the most quickly destructive form of bone ulceration. Syphilographers have not, as far as I have been able to ascertain, made any reference to this treacherous form of bone disease.

Indeed the literature of the whole subject of perforation of the nasal septum is meagre in the extreme and most unsatisfactory.

I will now describe the first of three cases of perforation seen by me, which occurred during the secondary stage of syphilis.

A.B., a strong, well-built man, aged 32 years, weighing 14 stone, contracted syphilis in December, 1891. He consulted me on January 14th of this year. His body, face, and extremities were covered by large papular syphilides, which looked very irritable, such as are often seen in the case of heavy drinkers. The spots were partially anæsthetic. He had mucous patches on his tonsils and soft palate, and ulcerative patches at the angles of the mouth. The induration at the seat of the primary lesion was still considerable, though the chancre itself had healed. He complained of general malaise and headache. He was never addicted to the use of alcohol, and, on my advice, gave up the use of tobacco as soon as he came under treatment. I might mention, *en passant*, that I have never seen a mucous patch or superficial ulceration of the mouth or fauces disappear while the patient indulged in tobacco.

This patient did not take kindly to mercury in any form. He was first put on drachm doses of liquor hydrarg. perchlor., with 20 minims of tincture of red cinchona after each meal. This disturbing his digestive organs I tried mercury by inunction, but with no greater success, as, at the end of the first week, he developed an eczematous eruption on the side of thorax, and on the outside of the thighs where the unguentum hydrarg. was being applied. He also complained of feeling squamish about the stomach, and was losing his appetite.

I now recognized that I had a very sensitive patient to deal with, and predicted, from his intolerance of mercury, that the case would present, in the near future, some serious complications of the disease.

I then commenced hypodermic injections of one sixth of a grain of hydrarg. perchlor., with enough cocain to deaden the pain, every second day. On this treatment the patient did so well that at the end of a fortnight I returned to liquor hydrarg. perchlor. drachm doses after each meal. On this he did fairly well, though he steadily lost flesh, which I look upon as an ominous sign during the administration of mercury in any form.

In the early part of May, three and a half months after the commencement of treatment, a deep ulceration, about the size of a threepenny piece, appeared on the pharynx, more than half the ulcer being concealed by the velum palati. I discontinued the mercury immediately, and ordered ten-grain doses of iodid. of potass. in bark four times daily, and touched the ulcer every day with nitric acid. The ulceration spread with alarming rapidity, and very ominous pains kept darting through both his ears. I added to his iodidi two grains of quinine, in pill form, three times daily. I thoroughly curetted the periphery of the ulcer—I could not curette the base, as the periosteum was exposed—applied fuming nitric acid, and placed the patient in bed, on a light nutritious diet. Four days later the pains had left the ears, and at the end of a fortnight, the ulcer being quite healed, I sent him for change of air to the country, ordering Gibert's syrup, which is a biniodide of mercury, made up in syrup of gentian. This he continued for three weeks, till his stock of medicine ran out, when he wrote telling me that his spots had disappeared, that his mouth was better, and mentioning that he was returning to Sydney.

A fortnight later (he had taken no medicine during this period), he presented himself to me in a most pitiable condition. He had a large gangrenous ulcer in the naso-pharynx, and a perforating ulcer of the bony septum narium. These manifestations, showing themselves almost suddenly and when the patient was for the space of 14 days without any medicine whatever, satisfied me that the cause of this present trouble was the stoppage of the mercury. Had the same conditions presented themselves during the exhibition of the drug, I would have been slow to adopt the heroic method which I will now describe.

Having well cocainized the septum on both sides, I curetted diseased bone from the septum till there was an opening as large as a sixpenny piece. I then touched the edges with chromic acid, and plugged the cavity with iodoform on cotton wadding. The ulcer of pharynx was also curetted, and its edges touched with chromic acid, and with fuming nitric acid every day during the first week, then every other day for another week. I injected into the deep muscular tissue of his buttock, two grains of the salicylate of mercury every third day, and gave him quinine and iodid. of potass. as on the previous occasion. Menthol was used to remove the crusts, and the nose was washed out with hydrarg. perchlor. 1 in 2,000 before each dressing. A second curetting of a small piece of softened bone in the anterior portion of the opening was required on the seventh day. In less than three weeks the ulceration in posterior narês had completely healed, and the septum was practically cured. The hypodermic injections were now used every fourth day, and the iodide reduced to five-grain doses.

On the 25th June, six weeks after the curetting, I again put him on the liquor hydrarg. perchlor., omitting the iodid. This was now well borne, and my patient increased in weight and improved rapidly. The nose fell in a great deal, but though the tip is slightly retroussé the deformity is not very noticeable. The patient is now quite well, though still under observation and intermittent treatment.

Had this condition of the fauces and septum occurred during syphilis in its tertiary stage, I should have relied on the iodid. of potass. in large doses, but occurring during the secondary stage of syphilis I think I was justified in combining the mercury with the potass., and in pushing the mercury rather than the potass.

My second case of perforation, occurring during the secondary stage of syphilis, was also remarkable, in as much as the ossicles of the ear were permanently disintegrated within a week of the appearance of the perforation of the septum. This case was sent to me by an aurist, who stated he had never seen such rapid destruction of bone. The treatment was the same as adopted in case No. 1.

The third case of syphilitic perforation occurred partly on the bony septum, and partly on cartilaginous portion. There was no difficulty in this case, though considerable deformity followed recovery.

Dr. MacMurray it was who suggested to me the use of such large doses of the salicylate of mercury. Previously I never injected more than one-third of a grain of the salicylate, and was always dissatisfied with the result. I am now more than satisfied with the hypodermic injections of two grains of the salicylate, and invariably have recourse to it on the first failure of the perchloride. I have never seen mercurialism, or any injurious effect, result from the use of such large and apparently heroic doses as are already described. I consider the combination of opium with mercury quite unnecessary and injurious in most cases. It deranges the digestion, and during its exhibition your patient will invariably lose weight. Even in syphilitic iritis the hypodermic method is much more efficient, while the dose can be regulated with much greater accuracy. I make this assertion knowing full well that it will be severely criticized by the followers of Jonathan Hutchinson who, as you are aware, still clings to his grey powder and opium in all cases.

We now come to the cartilaginous septum, where you find the simple perforating ulcer; I shall call it idiopathic perforation for want of a better name. This perforation is much commoner than is generally supposed. To my thinking it is quite as common as syphilitic perforation of the bony septum. I have seen several instances of this condition where the patient knew nothing whatever of its existence.

The etiology of this affection is most obscure. It is generally considered to have a neurotic origin, and to be more less analagous to perforating ulcer of the feet.

Clinically it is not of much importance, because treatment is of little avail. Besides, its tendency is to heal without causing any deformity of the nose. It sometimes, but very rarely, extends to the bony septum. I have seen the whole cartilaginous portion absent without any deformity resulting. To this class belongs the perforation which occasionally occurs during the course of typhoid fever and rheumatic fever.

Next in the order of frequency comes perforation from lupus. The ulceration accompanying this condition always commences at the junction of the skin and mucous membrane. Its progress is slow as it extends inwards and proceeds to perforation. It is generally accompanied by external manifestations of the disease. It is only lupus vulgaris which perforates the septum narium.

Kaposi very positively asserts that lupus never attacks the bony septum.

Tuberculosis ranks next as the cause of perforation of the nasal septum. Frankel never saw primary tubercular ulceration of the nasal septum, and, therefore, denied its existence. But Cartaz, of Paris, who collected 18 cases in 1888, has, in last August, published the notes of 80 cases, so I think the disease has a decided existence.

I had within the last month a case of phthisis laryngea, which was accompanied by ulceration of the tonsils and pharynx, as well as by a perforation at the junction of the cartilaginous and bony septum. Tubercular ulceration could very easily be confounded with lupus, though the tubercular ulcer is surrounded by a number of tubercles or ulcers in embryo, and contains large numbers of the tubercle bacillus while the lupus ulceration contains only a very few of those micro-organisms. When the ulceration of the pharynx or septum nasi is secondary to general tuberculosis of the lung or larynx, your patient will seldom live more than five or six weeks, while ulceration from lupus is accompanied by few constitutional symptoms, and is more or less amenable to treatment.

Perforation of the bony septum occurs in leprosy, but never as a primary manifestation of the disease. It is invariably accompanied by superficial or deep ulcerations of the pharynx and tonsils, which may remain stationary for months and even years. The lepers seem to take very little notice of this condition, unless the ulceration extends to the larynx, when it interferes with respiration or phonation.

The only case of glanders in the human subject that came under my notice had ulceration of the pharynx and destruction of the nasal septum. This was accompanied by large pustules or blebs on the face and an erysipelatous condition of the alæ of the nose. Fortunately this disease has not yet made its appearance in Australia, though only some months ago some imported circus horses showed signs of the disease, and were promptly destroyed. The disease, which is generally fatal, may be transmitted to man in all its virulence by any of the equine species of animals, even before those animals show any symptoms of the disease. In doubtful cases the hypodermic injection of mallein is now commonly used. It has the power of quickly developing the characteristic signs of the disease in the horse, which otherwise may remain latent even for months.

Atrophic rhinitis is rarely the cause of perforation of the septum.

Scheck states that when you have perforation accompanying this affection the cause is due to syphilis.

I have the notes of one case by me which certainly contradicts this view. A lady from a neighbouring colony asked me to accompany her to a throat specialist. Hers was a typical case of atrophic rhinitis. The small nose slightly elevated at the tip, the largely dilated nostrils, the absence of hair inside the nose, and lastly the earthy, unearthly, fœtid odour from her breath, left no room for doubt as to the diagnosis. On examining the nose with the speculum an extensive view of the pharynx could be obtained. The turbinated bones had almost disappeared, and the soft palate could be observed to rise and fall during respiration. There was a necrosed patch on what was left of the inferior turbinated bone. This was destroyed by the electric cautery, and a host of deodorizers, the chief being iodine and menthol, were used to purify her breath. Two years later I saw her, and this time there was under some scabbing a perforation through the bony septum, similar to that previously seen on the inferior turbinated. This healed after treatment by chromic acid, leaving a circular opening large enough to admit the end of a pen handle.

From an intimate knowledge both of this patient and her parents, I am positive there was no trace of syphilis, either hereditary or acquired, in her case. The fœtid odour of the breath is never so offensive in syphilitic, as it is in atrophic rhinitis. The sense of smell, which usually returns after syphilitic ozena, even after the function has been in abeyance for years, never returns in atrophic rhinitis.

Injury to the nose causing fracture of the septum could of course be followed by necrosis and perforation. Though when we consider the numerous injuries inflicted on this organ, we are inclined to think that some hereditary taint, such as scrofula or syphilis, is at the bottom of all those perforations.

Epithelioma causes perforation of the nasal septum, though very rarely without being accompanied by external signs which are characteristic of the disease. From its position it may simulate lupus vulgaris or syphilis, though the differential diagnosis is never a matter of much difficulty.

The same treatment is applicable to all forms of perforation of the nasal septum, leprosy excepted, namely, curetting, followed by electric cautery or chromic acid, plugging with iodoform gauze, taking care to place a quill in each nostril, through which natural nasal respiration can be maintained. This will enable you to continue the plugging for a much longer time, besides being a great comfort to the patient.

Having thus cursorily reviewed the conditions which are associated with perforation of the nasal septum, I shall feel satisfied if this small contribution will arouse somewhat of a general interest in a subject which previously was supposed to be confined within the limited area of specialism, though the principal object of this paper is to prove that there are other causes than syphilis which are capable of producing perforation of the nasal septum.

EASTERN MEDICAL ASSOCIATION.

The members of the Eastern Medical Association held a very enjoyable dinner at Stratton's Grand Hotel, Waverley, on the evening of Tuesday, December 13, 1892. Dr. F. H. Quaife, the President of the Association, occupied the chair. There were present as visitors the Hon. Dr. Creed, M.L.C., President of the New South Wales Branch of the British Medical Association; Dr. T. Fiaschi, Chairman of the Medical Section of the Royal Society; and Dr. R. T. Jones, President of the Western Medical Association.

After dinner the second annual meeting of the Association took place. There were present Drs. F. H. Quaife, P. J. Collins, Edwards, Barkas, Clubbe, Mullins, Parker, Twynam, Philip and Bowker.

The principal business was the election of officers for the ensuing year. The following were elected:—President, Dr. P. J. Collins; Vice-president, Dr. C. A. Edwards; Hon. Treasurer, Dr. W. J. Barkas; Hon. Secretary, Dr. G. L. Mullins; Members of Council, Drs. C. P. B. Clubbe, F. H. Quaife and A. F. Parker; Auditors, Drs. G. E. Twynam and A. Philip.

It was announced at the meeting that the Association was in a very satisfactory condition, both numerically and financially. Several members have joined during the past year, and it is now established on a firm footing.

NOTICE.

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, JANUARY 15, 1893.

EDITORIAL.

AUSTRALIA AND SMALLPOX.

No one who has given any attention to the facts can fail to see that Australia, and particularly New South Wales, stands in imminent and growing danger of a terrible epidemic of smallpox. The discovery of a case the other day in Petersburg, a South Australian town 154 miles inland, so soon after the previous scare had increased the vigilance of the port heath officers, demonstrates what has been often before pointed out—that no practicable measures, however stringent, can ensure us against the introduction of variolous infection.

Smallpox is not at present epidemic in London, and since the disease was prevalent in that city a longer interval has elapsed than at any period since 1838, in which year accurate records began. The latest London epidemic terminated in 1885, and over seven clear years have passed by, in no one of which has there been anything approaching a serious outbreak. Three years formed the longest interval ever before known. Whilst the improved arrangements of the Metropolitan Asylums Board, whereby all cases are now sent some 20 miles down the Thames to the Hospital Ships at Long Reach, no doubt partly explain this fact, yet no one knowing anything of smallpox history in London and elsewhere believes that this immunity will last much longer. Further, when next smallpox becomes rife in the East End there will be a far greater accumulation of material for its ravages (that is of persons who have become susceptible to infection) than has heretofore been the case. But supposing even that when smallpox next gains a footing in London these improved arrangements should succeed in keeping it down so that the epidemic shall not exceed those of former years, it remains obvious that the existence of an epidemic there will immensely increase the danger to Australia. Smallpox is common at Port Said, Suez and Colombo—all ports of call for the great mail steamers. No one therefore can reasonably deny that there is an increasing possibility of the introduction of the infection into Australia.

The only question indeed is how long will elapse before a case crops up under such circumstances as to cause an epidemic. Is it not more than possible that a case like that at Petersburg may develop in some village where there is no one qualified to quickly recognize it, and where, therefore, no precautions being taken, infection will be spread broadcast? Again, nothing is likely to be more common than for patients with a mild attack of varioloid to believe themselves well and to mix freely with their friends so soon as the comparatively trifling eruption is fully developed. In a paper on smallpox, read by Dr. Struthers (of Rylstone) to the last Medical Congress, it was related that one observer collected in six months at the Eastern Hospital, London, no less than 1,000 instances of patients who had done this. The consequence of such a thing happening but once amongst the unprotected inhabitants of New South Wales would probably be disastrous, and the appearance in, say, a country church, of a person with a scarcely noticeable eruption of this character would almost certainly be followed by an epidemic of terrible proportions. Remembering that smallpox is dormant in the system as a rule for twelve entire days before symptoms appear; that clothes stored away in boxes may retain the infectious matter of variola for months; and that the vast majority of passengers to Australia are vaccinated, and therefore liable to have the disease so slightly that it may be easily overlooked, one cannot help emphatically endorsing the opinion of Dr. Gresswell, the medical officer of health at Melbourne, expressed in his recent report on the "Oroya" outbreak: "*The success enjoyed in dealing with this outbreak is not likely to be repeated even under but slightly altered circumstances, and the lesson again assumes prominence that every person should be protected against the disease, a condition of things which can be brought about simply and solely by vaccination and re-vaccination.*"

Many persons quote the fact that the disease spread but little on board the "Oroya," forgetting that nearly all on board were vaccinated. Had that not been so, the result would indeed have been different. In a community so miserably protected as this is, smallpox will undoubtedly develop with extreme rapidity. For years past only a trifling percentage of children have been vaccinated in New South Wales. It is the duty of every practitioner to do his utmost to represent the reality of the risk of smallpox to all his patients, and to do all he can to induce them to be vaccinated.

So firmly do we believe that smallpox will one day devastate New South Wales, that we do not hesitate to say that whoever succeeds in vaccinating a number of persons saves thereby a large proportion of their lives. It is to be feared, however, that there are many inhabitants of this country who will never learn the truth about vaccination until the scourge it prevents has visited us. We may remind our readers that a new and powerful argument has recently been placed in their hands. To the late Congress, at which medical men of all shades of opinion were present, two resolutions on this subject were submitted, and carried without a dissentient voice. The statement which anti-vaccinationists delight to make, viz., that the ablest (!) medical men are hopelessly at variance about vaccination, is finally disposed of.

The Congress pronounced unanimously—

1. "That this Congress is of opinion that there is a real and yearly growing possibility of the introduction of smallpox into Australia; that in spite of the admirable precautions adopted by the various Boards of Health there is danger of its becoming epidemic; and that owing to the large number of unvaccinated persons in Australia an epidemic of smallpox would be attended with very great loss of life."

2. "That this Congress desires emphatically to express its belief that efficiently performed vaccination is a valuable protection from smallpox; that when it does not prevent an attack, vaccination deprives the disease of most of its horrors in the great majority of instances; that there need be no apprehension that vaccination, when performed under proper precautions, will injure health or communicate disease; and that vaccination should not be deferred until the actual appearance of smallpox."

THE MEDICAL ADVISER TO THE NEW SOUTH WALES GOVERNMENT.

◆

As a consequence of ill health, and to the universal regret of the profession, Dr. Norton Manning has felt it necessary to resign the appointments which he has held as Medical Adviser to the New South Wales Government and President of the Board of Health of that colony. He will, however, retain that of Inspector-General of the Insane.

Our expressed fear on his accepting the offices which he has now resigned, that the combined duties would prove more wearing than his strength would bear, has unhappily proved a correct prevision, and it is exceedingly fortunate that the colony can still avail itself of his services, which could not be adequately replaced, in the supervision of the institutions for the treatment of its insane. It should not be forgotten that Dr. Manning did not seek his late offices, but allowed himself to be appointed from a sense of public duty, for it is an open secret that by doing so he perhaps prevented circumstances arising which might have proved a serious peril to the safety of the public health and well-being. He is succeeded by Dr. Anderson Stuart, Dean of the Faculty of Medicine and Professor of Physiology at the Sydney University. This gentleman is well fitted for the position to which he now succeeds, being thoroughly capable, with much force of character. His capabilities as an administrator have been thoroughly proved by the efficiency of the School of Medicine of which he is the head, which is due to his power of organization.

DR. HOWSE versus DR. MccGWIRE.

IN this case, tried at the District Court held at Taree, on the Manning River, New South Wales, on the 5th and 6th of December, the plaintiff sued the defendant for libel in publishing a letter addressed "To Whom it may Concern," relating to which Joseph Symes, Secretary of the Belmore Lodge of Oddfellows, Taree, deposed that the lodge had received a written communication from Dr. MccGwire, stating that Dr. Howse had proposed to Dr. MccGwire that they, with Dr. Cameron, should meet quietly and throw over the lodges without notice, so that they could make more out of private patients.

As we fully agree with the decision of his Honor in this case, and with the opinions expressed in his summing up, we shall best place our readers in possession of the facts by reprinting the report of his remarks for their information:—

His Honor, in summing up, said :—" In this case a very deplorable state of things indeed has been laid before the court—a state of things that any person of a little education cannot but deplore. I have had before me three gentlemen, all supposed to have a liberal education, and who have had great advantages which perhaps many in this court have not enjoyed, each coming and detailing acts which appeared to me undoubtedly to have been dishonourable, and each of those gentlemen affect, or would have me believe, that he cannot see that these acts were dishonourable. I may say that for Dr. Moir's opinion I have not the slightest respect. His evidence does not in any way assist me in coming to a conclusion in this case. When, after he had given some evidence which seemed to me to be merely trifling with the intelligence of the Court, and when I wished him to repeat that evidence by saying yea or nay, he shirked the question and attempted to give, forsooth, what he called an explanation of how he had by way of joke applied for a rather responsible position in this district. So much for Dr. Moir. According to his own evidence he has been guilty of conduct about as dishonourable as any professional man could be guilty of. After going to a gentleman's private house, going as a friend and being received as such, hearing from that gentlemen matters which would only be spoken of by one friend to another, what does Dr. Moir do? First he attempts to jump the position that Dr. Howse thought would suit his (Howse's) brother, and after he had jumped that position, and finding that he perhaps was a square peg and did not fill the round hole as Dr. Howse's brother might or might not have filled it, he made public in a public house some information that he had received in the privacy of Dr. Howse's house. Dr. Howse most stupidly—I have no doubt that he regrets it now—trusted this man as a friend and as one professional man will do to another, showed his prospects to Dr. Moir, and how his business was an ever-increasing one, and in the intimacy that only exists between friends Dr. Howse was simple enough to show his books to Dr. Moir. Dr. Moir for some purpose, to suit himself it may be, or it may be to suit somebody else, made public that information which he had received under the protection of a friend's roof, and now Dr. Moir has the effrontery—I can only characterize it as that—to say that he does not see that that was a dishonourable act. I pity Dr. Moir. I wonder what he would consider to be a hishonourable act. It would be very hard indeed to know what act could be more dishonourable than to go to a gentleman's house, ascertain from him his income a year, and afterwards make that information so received public. I shall now come to Dr. MccGwire. What has he sworn? Whether or not he had the conversation deposed to was altogether immaterial. I need not, and I do not, consider whether that conversation did take place, although in one respect I have considered it. I need not, in this respect, as I have pointed out and of course submitted, that if the matter be libellous it is just as libellous whether it is a true statement or not, whether it was a statement of fact or a mere expression of the imagination of Dr. MccGwire. That he published this libel there is no doubt. He received that information, he would have me believe, as a friend of Dr. Howse. He has sworn that up to that time he was on terms of friendship with him. They did not visit each other socially, but I take it that they met as friends, and that during that meeting they naturally had a conversation, and during that conversation probably discussed their prospects in the district. Whatever was said was under the seal of privacy as between two professional gentlemen. What is the conduct of one of those gentlemen if, after, it may be or may not be, hearing the expressed opinion of his professional brother—after, it may or may not be, sucking his brains as to what he thought about these lodges, what does that professional man do? He, I will presume accidentally, meets one of the members of the lodge of which his professional brother was doctor, and to that member details the private conversation; and to-day Dr. MccGwire swears that he cannot see in making that communication he was guilty of an act other than an honourable one. He would have me believe that he was disposed to Dr. Howse in a friendly manner. Why did he make that communication? What is it for? To assist Howse in any way to continue in the Taree lodge or otherwise? Dr. MccGwire was unable to explain why it was he made the statement. He does not now show any sorrow. It appears to me incredible that a gentleman meeting another at a private house, and having a private conversation with him, should detail it in a way that might be an injury to his friend. We have Dr. MccGwire's evidence that he did not consider this dishonourable. When Laing told the members of his lodge what defendant had stated to him they would hardly believe it, and he returns to defendant and asks him to put the matter in writing. Dr. MccGwire then repeats his slander by making it a libel, and heads his letter "To Whom it may Concern," and sends that forth into the world. The lodge members then see that the matter is serious, and call upon Dr. Howse for an explanation; and it appears that he explained to their satisfaction that this libel was false, and he was retained in the position as *locum tenens* of Dr. Curtayne, and after that doctor had resigned, received the permanent appointment he now holds. What has occurred after that? After the publication Dr. Howse —it may be not wishing to have this matter aired in public court—laid on his oars, and it was 14 months afterwards that he wrote a letter to Dr. MccGwire asking for an apology. It is for very many reasons to be regretted that Dr. Howse so long remained quiescent, and at the close of the case I may say it appeared to me that this had not been explained, but unfortunately for the defendant I can now easily understand, after hearing his evidence, how it is that at last Dr. Howse has summoned up courage to bring the matter before the court. I am asked by the learned counsel who has conducted the case for the defendant to come to the conclusion that as the plaintiff himself swore that there was no enmity before the publication of that libel, and as the defendant has corroborated that evidence by swearing that there was no enmity up to that publication, I am therefore as jury to come to the conclusion that the libel was not published with malice. Well, in judging of this question of malice the jury are entitled to look, not only at the conduct of the parties before the publication, but they are entitled, nay bound, to look at the conduct of the parties after the publication. Now, what do we find from the lips of the defendant to be his conduct, his feelings towards the plaintiff after the publication? According to his own evidence he rather gloried in having libelled his brother professional, and repeated that libel wherever he had an opportunity. He never denied having made use of the words, of having written this document, but not only seems to have gloried in his own evidence in the publication of that libel, but appears to me to have hounded Dr. Howse down on every possible occasion. According to his own evidence in cross-examination, if not directly, he yet inferentially advised patients of Dr. Howse to take action for malfeasance, for negligence. He has maliciously brought reports about in connection with Dr. Howse's treatment of patients at the Hospital. It certainly does pass my comprehension how a gentleman of Dr. MccGwire's education and social position should have belittled himself in the way he has sworn by attacking behind his back a brother professional, a gentleman of standing and reputation in that profession; and one would have thought that when these questions were asked of the gentleman in the witness-box he would have answered them in a way showing some regret for having maliciously broached these further slanders. But to my astonishment he seems to have thought that in doing as he did he was doing a praiseworthy act. Where his ideas of honour come from I certainly have no idea. I hope from no University; it would be slandering one of our best Universities to say for a moment that such ideas came from there. Being assisted as I have been by the evidence of Dr. MccGwire on this question of malice, what conclusion can I come to other than that when he swears that on the 30th of May he published this he was on good terms, "that there was no enmity" between himself and plaintiff? If he was on good terms, and there was no enmity, why should he, in the words of Laing, attempt to "stab" Dr. Howse "in the back?" That is a question which Dr. MccGwire could not answer, and his counsel has not suggested any answer; and I certainly cannot consider that there can be any answer accepted but that when this libel was published it was published with one object alone, and that was to oust Dr. Howse from the position he then held as medical officer of the Taree Lodge of Oddfellows. Finding then, as I must, that these words complained of are libellous, that they were published, and that they were published with malice, the question then remains, what damage has Dr. Howse suffered? Well, it may be that this action would never have come before the court if Dr. MccGwire had not continued to attack the professional reputation of Dr. Howse. From my experience of such cases I am sure it would not have been brought unless the attack continued, and that though the claim for damages is fixed at the highest amount this court can give, the case is not brought so much to get damages, to transfer money from the pocket of Dr. MccGwire to that of Dr. Howse, as to put an end to those intolerable slanders which appear to have been sown so broadcast by Dr. MccGwire. Before I conclude, there is one piece of evidence which I am sorry I must allude to, and that is that Dr. Howse, when he knew that he was at lesser or greater arm's length from Dr. MccGwire, appears himself to have acted with a large amount of indiscretion. I might even use a harsher term. At least in one conversation, when he was, comparatively speaking, addressing a stranger, Dr. Moir, there can be no doubt that Dr. Howse did use language which no gentleman ought ever to use under any circumstances, and certainly no honourable professional gentleman should use of a brother professional. According to a witness for the plaintiff, in a conversation at which a number of gentleman were present, matters generally were being discussed, and Dr. Moir, almost a stranger to him, came upon the scene, and Dr. Howse appears to have let his temper get the better of him, and he then applied to Dr. MccGwire an epithet which most certainly no professional gentleman of any standing would ever think of applying to a brother professional. That appears to be the only occasion where Dr. Howse has acted in an improper way to the defendant. I regret having to refer to that point, but having referred to the extraordinary conduct of Drs. Moir and MccGwire I think it only fair to refer to the words used by Dr. Howse. As to the question of damages, as I said before, there can be no doubt that this action has been brought, not so much for damages as to stop the everlasting imputations which have been continually and continuedly cast upon the professional reputation of Dr. Howse. If it was possible that a man's professional reputation could be assailed in the way in which Dr. MccGwire admits he has been assailing Dr. Howse, I should think Dr. Howse's life would not be worth living. We all regret that this case has been brought. Any person of education must regret it has been brought. However, it has been brought, and the question now is at what amount must I assess these damages. Taking all the matters into consideration I assess those damages at £10; I allow costs on the higher scale, and I fix counsel's fee at £10 10s., with three witnesses for three days each.

LETTERS TO THE EDITOR.

THE ANTISEPTIC TREATMENT OF DIPHTHERIA.

(*To the Editor of The Australasian Medical Gazette.*)

Sir,—In Dr. Hirschfeld's paper on the above subject, appearing in the November number of the *Gazette*, there are one or two points on which I may, perhaps, be permitted to offer a few words of comment.

In the first place, Dr. Hirschfeld does not, I think, distinguish as clearly as he might where his remarks are intended to apply to local, and where to constitutional, antiseptic treatment; surely two very distinct questions. Judging, however, from the title and general tenor of his paper, it is, I think, to be inferred that he disapproves *in toto* of antiseptics in the treatment of diphtheria. Let us consider the questions separately.

With regard to local antiseptic treatment: It is doubtless true that many substances have, from time to time, been advocated for topical application with a view to the destruction of the specific microbes; and it may also be safely admitted that many or most of these substances have subsequently fallen, more or less, into disrepute. But in the absence of antiseptics, direct and indirect, it would be interesting, I think, to learn the details of the "rational treatment" by which Dr. Hirschfeld considers "a great deal of good may be done in the early stages of the disease, when it may be possible to prevent its more serious development." At the present time it is generally admitted that diphtheria is, in the first instance, a local complaint, and that the constitutional phenomena result from the absorption of septic poisons and specific toxines. Local antisepsis, in one form or another, is therefore surely a primary indication.

It is, however, to the question of constitutional antiseptics that Dr. Hirschfeld's paper is chiefly addressed. His objections thereto are based on the grounds:—1. That they are useless, because it is impossible to administer them in sufficient quantities to act as germicides without at the same time poisoning the patient; 2. That they are dangerous, because many of them are apt to irritate the kidneys.

Now, in regard to the first objection: It is well known that there resides in living bodies—whether in the cells or in the plasma, or in both—a well-marked germicidal power, varying in different animals in respect to different microbes, and also in respect to different microbes in the same animal. Where this inherent bactericidal power is sufficient to destroy the microbes of any given disease easily and at once, perfect immunity results in respect to that disease. Where, however, the germ-killing power is less perfect, disease results, more or less severe in proportion to the imperfection of this power. In such a case of deficient germicidal power there is surely nothing irrational in supposing that the presence of a very small quantity of an antiseptic substance, *acting as an auxiliary*, may so reinforce the natural germicidal powers of the body as to enable them to cope successfully with the invading microbes. And the proportion of an antiseptic substance necessary to perform this auxiliary office may obviously be infinitely small compared with that which, *acting per se*, is required to destroy microbes in a test tube. To apply to the treatment of microbic disease inferences drawn directly from test tube experiments is, it appears to me, to ignore the most important factor in the case, viz., the germicidal action, or autoprotective power, of living bodies.

Turning, however, from the general question of internal antisepsis to the particular one of its application to diphtheria, it is quite possible to assent to Dr. Hirschfeld's proposition "that the internal use of antiseptics in diphtheria with a view to attack the microbic cause of the disease is without any scientific foundation," without by any means subscribing to the reasons which he adduces for that conclusion. My objections to those reasons I have just stated. The grounds of assent in regard to his proposition are not that the means of antisepsis are *necessarily* inadequate, but that the end sought by the internal administration of antiseptics is based upon error.

The tendency of recent research goes to show that human diphtheria belongs to the class of microbic diseases of which tetanus may be taken as a type; the specific organisms have a local nidus whence the products of their activity are absorbed into the system, thus differing widely from that class represented by such diseases as anthrax, where the microbes themselves swarm in the blood and internal organs. The essential phenomena of diphtheria are produced in animals by the injection of the specific toxines elaborated by the Klebs-Löffler bacillus, and there is every reason to believe that in human diphtheria these toxines are absorbed from the affected mucous surface, and thus give rise to the constitutional symptoms of the disease. In the absence of evidence that germicidal agents have any particular antidotal action in respect to these subtle poisons, it is difficult, from a theoretical point of view, to understand the rationale of their internal administration.

With regard to the *practice* of internal antiseptic medication, I am, personally, in the present state of our knowledge, more inclined than Dr. Hirschfeld appears to be 'to lean to the traditions of experience,' for although, as already said, I do not myself see the rationale of the treatment, a due regard for the 'law of testimony' seems to forbid the wholesale relegation of the large mass of favourable testimony to the dim limbo of subjective error.

No one will, I suppose, quarrel with Dr. Hirschfeld's second objection to the internal administration of antiseptics, viz., that many of them tend to increase the renal irritation caused by the diphtheria toxine or toxines.

I am, yours, &c.,

J. SIDNEY HUNT, M.R.C.S.,
Surgeon to the Hughenden
District Hospital.

Hughenden, North Queensland,
15th December, 1892.

[We would call the attention of our correspondent to a paper on the treatment of diphtheria by the internal administration of sulphurous acid, read before the Sydney Branch of the B.M.A., and published in the *A.M.G.* for December, 1891.—Ed. *A.M.G.*]

A CASE OF ECTOPIC GESTATION.

(*To the Editor of The Australasian Medical Gazette*).

Sir,—In the November number of your journal appears a letter from "Dr. Stewart McKay," commenting on a case of abdominal pregnancy operated on by me, and while I am pleased to admit that his letter is a very able production, still I think many of his theories are open to question and argument.

He starts away to prove that the case was not an intra-peritoneal one of eight months' duration, but of one month. I hope to be able to show that it was a primary abdominal pregnancy.

"Dr. McKay" unnecessarily takes me to task over using the words *uterine souffle*, and corrects me by naming it *placental*. But both names are misleading inasmuch as the same sound is heard in uterine, fibrous and ovarian tumours. I specially referred to this sound, for although I auscultated over the placental site there was nothing peculiar in the sound at that place to point to the position of the placenta; in fact the souffle was more audible over the liver.

The pains patient complained of in December could be accounted for either by the escape of the ovum out of the fallopian tube into the peritoneum (and I have since learned that a medical man made the diagnosis of enlarged fallopian tube a few years before), or the ovum may have escaped from the ovary into the peritoneum. Either of these conditions would, I contend, account for the reflex symptoms of vomiting, &c. Her symptoms were certainly not urgent enough to suggest rupture of the fallopian tube; and had such a case occurred it could be made out by the bimanual examination.

The attack in July, although severe, was not, I contend, indicative of rupture of the sac and its contents into the abdominal cavity. Let one imagine the terrible consequences consequent on such a catastrophe as rupture of a seven months' pregnancy. The shock would be enough of itself to kill her. Nor could a few injections of morphia counteract such alarming symptoms.

I have no doubt that the pains were due to the head of the child dropping into the pelvic cavity, for she complained to me, to use her own words: "The child seems lower since the walk, and the head seems to press on the back passage and on the bladder." The patient wisely enough said: "I think the pain must be due to the child coming down before labour. Other women tell me that they often suffer this way, and that symptoms of pressure are the same."

The patient always complained of the child kicking very strongly; and no doubt the dropping of the head into the pelvis, or alteration in position of the child, may be of itself enough to determine the life of the fœtus, and we are all aware that violent movements of a child often indicates in uterine pregnancy its approaching death.

I have seen intestine in cases of peritonitis, and it always appeared to me of an ochre-red colour. Is it not so sometimes in strangulated hernia?

I cannot by any effort of imagination conceive how pressure of the child's head could close the uterine canal. A reference to the report will show that the uterus was directed towards the right side of pelvis and not against the pubes.

I have before pointed out that it was an error of words and not of reasoning that *uterine souffle* was used, and Dr. McKay may have noticed that by the context of my letter and need not have attributed absurdities to me.

I admit the operation was not performed early enough, but it was done as soon as the diagnosis was allowed to be made and permission given. The treatment of the placenta when attached to the abdominal wall is, I think, a moot point, and as after results proved, I did the right thing in removing it; but to cut here and there, and then at right angles through the abdominal wall of a patient so reduced as mine might be termed heroic surgery, and I submit every case must be treated on its own merits. Expedition was the watchword in my case, and I had necessarily to hurry.

Drainage per vaginam may be condemned on the Continent, but it acted so well in my case that I would try it again rather than have the abdominal wound disturbed. Both theory and practice direct that drainage should be in the most dependent part, and in such cases as the one under discussion that place is through the pouch of Douglas; again, were I to meet a similar case I would operate through the vaginal vault. Dr. McKay talks about injuring the placenta, but I stated that I could distinctly make out the suture of the skull. I do not think I could do that if the placenta were in the road.

I have not the slightest doubt that the case was a primary abdominal pregnancy, the position of the child and the abdominal viscera pointing to it.

There are many cases recorded where delivery has been effected through the vaginal wall, one notably referred to by Dr. Playfair in his excellent work on obstetrics. I am, very truly yours,

Perth, W.A., E. J. A. HAYNES,
December, 1892. L.R.C.P. Lond., M.R.C.S. Eng.

CASE OF PARAPLEGIA TREATED WITH HODGKINSON'S ELECTRO-NEUROTONE.

◆

(*To the Editor of The A. M. Gazette*).

DEAR SIR,—T. S., aged 51 years, has been suffering from paraplegia for the past two years. He was removed from one of the Government asylums in September of last year and then came under my notice.

He was suffering from complete loss of sensation in both his legs, and was unable to stand or move. I advised the use of Mr. T. G. Hodgkinson's electro-neurotone apparatus and massage; and under this treatment, which was carried out by Mr. Hodgkinson under my supervision, the improvement in the patient's condition has been most marked, although the treatment was only carried out for one month. He can now get about on crutches and can move both his legs freely.

The results derived from the use of Mr. Hodgkinson's electro-neurotone apparatus in this were very gratifying, and I consider the apparatus to be a very valuable one and deserving of a thorough trial by medical men in suitable cases.

I have also seen great benefit derived from the use of the neurotone in a case of severe facial neuralgia.

I am, Sir, yours, &c.,
W. A. WEST, L.R.C.S.I., &c.
Glebe, Sydney, January 5, 1893.

CASE OF OBSTINATE SCIATICA GREATLY BENEFITED BY TREATMENT BY THE ELECTRO-NEUROTOME.

◆

(*To the Editor of The Australasian Medical Gazette.*)

SIR,—Mr. P., artist, 54, was seized on the 4th March with an intense attack of sciatica. The acute pain, often agonizing in character, lasted for 10 days, and was only partially relieved by morphia, subcutaneously, and soothing applications. After this time the acuteness of the pain subsided, but the whole limb (the left) remained tender along the course of the nerve and painful on the slightest movement.

As all the ordinary remedies failed to remove this condition the patient was reduced to a state of perfect helplessness. He was advised to try the treatment by the electrical apparatus devised by Mr. Hodgkinson, of Melbourne, and the most gratifying results were obtained in a few days, as the pain almost completely left the limb. After three weeks' treatment the pain had practically disappeared, though the leg still remained shrunken, and it was some months before the proper use of it was regained.

RICHARD ARTHUR, M.D.
Sydney, January, 1893.

IMPERFORATE ANUS.

◆

(*To the Editor of The A. M. G.*)

SIR,—Since publishing the two cases of imperforate anus in this month's *A.M.G.*, another case presented itself a week ago, in which the anal passage was closed about a quarter of an inch above the orifice. The bowel was very close, as its impulse could be felt by the finger. In this simple case I intended, at first, to cut through the septum, but on attempting to do so found that there would be very little room to work in if any accident happened. Accordingly I cut through the posterior margin of the anal opening towards the coccyx, and immediately the bowel presented without any traction whatever being made. I then secured it on either side with artery forceps, divided and stitched as in the former instance. This little patient has also done well.

In all cases of this kind I would advise a preliminary incision to the coccyx, as one may be mistaken and find that the bowel is not so close to the surface as may be imagined. It gives ample room and does no harm. Above all, stitch carefully bowel to skin, for by doing so we keep the peritoneum free from infection. It really does not matter whether the stitches hold or not, for after the first two or three days the peritoneum is shut off and all danger is over. I am, Sir, yours, etc.,

W. S. BYRNE, M.B., B.Ch.

Brisbane, December, 1892.

TOXIC ACTION OF COMMONLY-USED DRUGS.

◆

(*To the Editor of The Australasian Medical Gazette.*)

DEAR SIR,—The two following cases of toxic action of commonly-used drugs have occurred here, and may be of interest :—

No. 1.—A married woman suffering from constipation took a piece of colocynth pulp "about as big as the end of her little finger" and a pinch of powdered aloes, and rolling them up in the form of a pill, swallowed the mass. This was at midday. At 11 p.m. she was seized with abdominal pains, vomiting and purging, which soon became bloody ; rectal tenesmus ; suppression of urine. I saw her at 6 a.m. next day. She was not severely prostrated, but weak ; temperature normal ; pulse frequent and small ; tongue furred and dirty. I was shown her last motion, which consisted of a double handful of blood and mucous, with no fæcal constituents apparent to the eye.

Treatment.—Mustard plaster followed by linseed poultices to the abdomen ; suppositoria morphiæ ; for vomiting, cerii oxalas and bismuth carb. and a draught of mag. sulph. and mag. carb. The symptoms rapidly abated, and in three days she was recovered, but weak.

I regret that the urine she passed—it was copious in a few hours—was not kept for me to see.

No. 2.—A short time ago I read that antipyrin had been used with good effect in whooping cough, and as we have an epidemic of that complaint here, I thought I would try it. I saw a child, aged 18 months, in the second week of the sickness ; and as it had a temperature of 102°, I thought it a favourable case for antipyrin. I ordered gr. i. t.d.s. The first dose gave it 3½ hours' comfortable sleep. The second dose was followed by lividity, with coldness and twitching of extremities. The third dose was succeeded by profound collapse, so much so that the child was laid out for dead, and it remained in this state for about 20 minutes. The antipyrin was discontinued. I am, yours truly

FRANCIS PAIN.

Allora, Queensland, November 29, 1892.

UNQUALIFIED PRACTITIONERS AND DEATH CERTIFICATES.

◆

(*To the Editor of The A. M. Gazette.*)

SIR,—I shall feel much obliged if you will find room in your paper for the following case. It shows the necessity for the introduction of some legislation to protect the public, and I think it is the duty of every medical man, when he comes across such cases, to give them full publicity.

A patient came to me in November, 1891, suffering from scirrhus of the right breast. Removal of the whole breast was advised and the operation consented to. I removed the breast and also all the axillary glands, and the patient got over the operation very well. I saw no more of her until May of this year, when she came to consult me about an enlarged gland, which had appeared in the right supra-clavicular fossa. I removed the gland and everything went on well until early in July, when she came up with another enlarged gland in the same place. Dr. J. Jarvie Hood saw her with me, and we both agreed that it would be impossible to remove it, and advised the woman to leave it alone and on no account to have it meddled with or irritated. I did not see her again until some five weeks ago, when I found she had been under the care of a man named Mulqueeny, who sets up on this river as a cancer curer. It seems that in order to get rid of this gland he appplied plasters to the part frequently, eventually causing a large ulcerating wound, through which the gland, very much enlarged by constant irritation, sloughed out. The gland had all come away before I saw her. The wound was fully the size of the palm of the hand, with hard, everted edges containing nodules of cancer. In the middle of this wound was the clavicle with at least 2½ inches of the bone quite bare except for the periosteum covering it. Her head was quite retracted to one side, any movement causing intense pain.

When I saw the unfortunate woman in July she was in a very good state of health. The gland was not very large and caused her no inconvenience, and no disease could be detected in any of the internal organs. In November she was greatly emaciated and in a dying state. We attended her as an act of charity, and to relieve her sufferings by means of morphia. During the last fortnight the liver became affected, and at the last measured quite nine inches in the nipple line.

There can be no doubt this woman's life was considerably shortened by the treatment she received, not to mention the intense pain she suffered during the time the plasters were being applied.

I refused to give a certificate of death, as both Dr. Jarvie Hood and myself considered that an inquiry should take place. We handed the Coroner a written statement of the facts of the case, and were informed the next day that he had communicated with the authorities in Sydney, and had granted a burial certificate.

I am, Sir, yours, &c.,

R. W. YOUNG, M.R.C.S. Eng.

Maclean, Clarence River,
6th December, 1892.

[An inquest should undoubtedly have been held in this case before the burial of the body. We hear that the Minister has since ordered an inquiry to be held.—ED. *A.M.G.*]

MEDICAL ADVERTISING.

(*To the Editor of The Australasian Medical Gazette.*)

SIR,—At the last meeting of the South Australian Branch of the British Medical Association, during the discussion on advertising some members seemed to think that advertising was allowed and followed by leading members of the profession in Ireland. I felt sure at the time that some steps had been taken lately to deny this, but was unable at the time to remember what. To-day I find in the *Journal* the following paragraph: "At a meeting of the Royal College of Surgeons of Ireland on Monday, June 11, a resolution was *unanimously* carried declaring that announcements that any Fellow or Licentiate had left town 'on professional business' were of the nature of an advertisement and derogatory to the dignity of the College."

This clearly proves that the Royal College of Surgeons, Ireland, considers advertising in any form derogatory.

I am, yours, &c.,
R. KENDRAY ARCHER.

Exeter, South Australia,
December 21, 1892.

ADVERTISING QUACKS.

(*To the Editor of The A. M. Gazette.*)

SIR,—A young man is at present an inmate of my hospital, and is suffering from seminal emissions, which are causing him deep anxiety. I have done my best to re-assure him, and encourage him to believe he is in no way really ill. Among other advice I have strongly warned him against quacks, but in spite of this advice he has (attracted by an advertisement) written to one in Sydney, and this individual has replied to say his case is one of the most serious that occurs in the medical profession, and offers "to cure" him for £10.

I consider this a gross case of obtaining money by false pretences, and I think it is high time the New South Wales Government passed a medical act protecting stupid or weak-minded people from being swindled. Yours, etc.,

JOHN ERNEST MOFFITT,
Resident Surgeon, Creswick Hospital,
29th October, 1892. Victoria.

VACCINATION IN RELATION TO SMALLPOX.

(*From the London Standard.*)

AN important contribution to the literature of vaccination in its relation to smallpox has been issued by the Imperial Health Office in Berlin. This treats of smallpox mortality throughout the German Empire during the year 1890. Inasmuch as the whole matter is, by the appointment of a Royal Commission, which is still sitting, regarded by many in this country as an open question, the report of the German official authorities comes in opportunely to tell us something of the prevalence of smallpox in a country where both primary and secondary vaccination is legally and strictly enforced. We find that in 1890 only 58 deaths from smallpox occurred, a rate of 1·18 per million living, or one-third the average annual rate of the five years 1886-1890. These 58 deaths were distributed over 33 places—that is, each place had less than two deaths on an average. Moreover, 49 of them took place close to the frontiers of Austria, Belgium, Switzerland and Luxembourg—countries in which vaccination is less strictly enforced than in Germany. Fifteen of the deaths were under two years of age, and they were all unvaccinated; the nine who died between two and 12 years were either unvaccinated or died of superadded disease; while as to the four between 15 and 30 years, one was unvaccinated and nothing definite was known of the vaccination of the others. From statistics of deaths from smallpox throughout the Empire in 1886-90, it is concluded that the chance of a vaccinated child of two years dying of smallpox is extremely slight, only two deaths per million living at that age happening each year. For a person of 50 this chance is smaller than that of a child of two, but higher than that of a middle-aged person. Again, from comparison of deaths in 229 German towns and selected towns in other countries, it is found that though there were fewer deaths in English towns there were ten times more in Swiss, 13 in Hungarian, 42 in Belgian, 55 in French, 60 in Austrian, and 97 times more in Italian towns. The mortality rates per 100,000 were, during 1890, 562 in Madrid, 335 in Venice, 213 in Verviers. On the other hand the rate in Berlin was 0·2, in Breslau 0·3, in Dresden 0·4, and the highest of all (Bremen) was only 2·4. And the average yearly deaths from smallpox per million during 1886 to 1889 were only 3·5 in Germany, compared with 963 in Spain, 536 in Italy, 471 in Austria, and 231 in Russia. Besides the above statistics the German report contains minute details of 140 cases of smallpox that were officially notified from different parts during 1890, mostly from Bavaria and Alsace-Lorraine. From particulars of these cases it may be seen that the majority of them were introduced, as into Bavaria from Bohemia, and into Alsace from France; and that the fatal and severe cases were as a rule in people who were either unvaccinated or had not been revaccinated, whereas the course of the disease in the few revaccinated who were attacked was always mild, terminating in recovery. These facts may be commended to the attention of our own Royal Commission, and of those of our statesmen who may be thinking of turning a favourable ear to the opponents of compulsory vaccination. With such evidence before them, and with the history of Dewsbury early this year and of the present ominous occurrences at Leicester, where already some score of cases of smallpox have appeared, and where the administrative alternatives to vaccination appear to be breaking down under the pressure of the epidemic, it would be sheer folly to abrogate or lessen our chief safeguard against this terrible disease.

FOR SALE.—An Old-established Unopposed Practice in the North Coast District of New South Wales; Cash Income £700 a year, including £300 from Clubs; Good House, rent 16s. a week; price for furniture (valued at £150), drugs, buggy, two horses and goodwill only £250. L. Bruck, Medical Agent, 13 Castlereagh-street, Sydney.

WE have tried Swinborne's Isinglass, which is advertised in the *A. M. G. Advertiser*, and have found it in every way superior to any other isinglass we have ever used; it dissolves readily in warm water and leaves no deposit, besides being tasteless and entirely free from smell. Swinborne's isinglass will be found very useful in rendering tea, milk, or broth more easily digestible to invalids.

BOWRAL.—DR. WILSON has accommodation for resident patients and convalescents.

STRYCHNINE IN SNAKEBITE.

◆

DR. AUG. MUELLER, of Yackandandah, informs us that he has received a letter from Major Petrie, an old Indian Officer and Secretary of the Victoria Institute in London, advising him that Sir Joseph Fayrer, K.C.S.I., President of the Medical Board at the India Office, has now recommended the introduction of the strychnine treatment for snakebite in India to the English Government.

THE following is a copy of a despatch which His Excellency the Governor of Victoria has received from the Right Honorable the Secretary of State for the Colonies with regard to a Memorial addressed by Dr. Mueller to Her Majesty the Queen, respecting the treatment of snakebite with strychnine :—

"Downing Street,
"11th November, 1892.

"MY LORD,

"I have the honour to acquaint you that the Memorial, addressed by Dr. Mueller to the Queen, which accompanied your dispatch No. 114 of the 8th of September, respecting the treatment of snakebite with strychnine, was duly laid before Her Majesty, who was pleased to receive it very graciously.

"The Secretary of State for India informs me that a copy of Dr. Mueller's Memorial has been forwarded to the Government of India, who have been requested to give careful trials to Dr. Mueller's methods under the supervision of a complete medical committee at Calcutta, and also in selected hospitals, like Dr. Banerjee's at Pachhadra, to which the Memorial makes reference.

"It is suggested that if Dr. Mueller has any further proposals to make in connection with the experiment, he might be invited to forward them direct to the Secretary to the Government of India in the Home Department at Calcutta.

"I have the honor to be, My Lord,
"Your Lordship's
"Most obedient, humble Servant,
"(Signed) RIPON.

"Governor The Right Honorable
"The Earl of Hopetoun, G.C.M.G., &c., &c., &c."

DR. THS. MEIN AUSTIN, of Kerang, Victoria, has had a case of tiger snakebite, which he treated successfully by the hypodermic injection of 10 doses of strychnine of $\frac{1}{10}$gr. each, or one grain in all ; we hope to publish a full account of this case in our next issue.

THE following telegram appeared in the Sydney daily papers of Friday, December 8 :—

"CAMPBELLTOWN, Thursday.—This morning a boy named Waters, 10 years of age, the son of Mr. G. Waters, of Menangle-road, was bitten on the foot by a brown snake. Almost immediately after the bite the father scarified the wound and applied a ligature. Dr. Smythe was then sent for, and arrived in less than an hour. The boy was then in a semi-comatose state. Dr. Smythe adopted Dr. Mueller's strychnine treatment with satisfactory results within a few minutes. The patient is now out of danger."

THE officer in charge of the police station at Ipswich, Queensland, reports, re the case of snakebite mentioned in the newspaper paragraph below, that he waited on Dr. Phillip Thornton, the Resident Surgeon of the Ipswich Hospital, and was informed that the contents of the paragraph were correct. The boy, Frederick Martin, aged 12 years, was bitten on the right foot near the instep by a brown snake between four and five feet long, at the Three Mile Creek, Ipswich, on the morning of the 22nd November ; the boy arrived at the Ipswich Hospital about one hour and a half after he had been bitten. The doctor states there is no doubt but that it was a genuine case of snakebite, as the punctures could be plainly seen on the boy's foot ; the boy did not appear to be suffering a great deal, but was in a very excited state. Immediately on his arrival at the hospital Dr. Thornton injected seven minims of liquor strychnia in the immediate vicinity of the snakebite, and attended the boy for some time after he appeared to gradually improve. The wound was afterwards dressed with a permanganate of potash solution, and the boy was detained in the institution for about 48 hours, when he was discharged completely cured.

Copy of newspaper paragraph.—"A case of snakebite occurred on Tuesday last at the Three Mile Creek, which was fortunately not attended with fatal results. It appears that a boy named Frederick Martin, twelve years of age, living with his father in that locality, was going to school with his brother about 9 o'clock on the morning of the day mentioned. They were crossing some paddocks near the school when a large brown snake, about 4ft. or 5ft. long, bit the boy on the right instep. Both lads then ran to the school and informed the master of the occurrence. Mr. and Mrs. Allen at once tied ligatures round the instep and leg above the punctures, and also made a slight cut through them to make the blood flow more freely They next drove the boy to the hospital in a buggy, and Dr. Thornton injected strychnine in the vicinity of the wound and detained the sufferer in the institution. He is now out of danger and doing very well."

WE have received from the Colonial Secretary's Office in Brisbane the accompanying extract from the *Ipswich Advocate* of the 23rd ultimo, reporting a case of snakebite which occurred near Ipswich, and which was successfully treated by the injection of strychnine ; also a copy of the local constable's report upon the case as follows :—

"Constable Alexander Benzies reports *re* the case of snakebite mentioned in the attached newspaper paragraph :—The constable waited on Dr. W. H. Von Lossberg, of Ipswich, and he informed the constable that the contents of the paragraph were correct. The girl, Elizabeth Gœbel, aged 12 years, was bitten on the inside of the right ankle by a black snake about 2ft. 6in. long, at Mutdapilly, about 14 miles from Ipswich, on the afternoon of the 22nd November instant. The girl arrived at Dr. Von Lossberg's surgery 2 hours and 45 minutes after she had been bitten. She was then in a very low state and unconscious. Immediately on her arrival Dr. Von Lossberg injected in the immediate vicinity of the wound $\frac{1}{16}$gr. of strychnine (hypodermic tabloids dissolved in 6 minims of water). Ten minutes afterwards he removed the ligatures (which had been put on the girl's leg by her relatives shortly after being bitten), and injected a similar dose in her arm. Very slight effects of the strychnine appeared. All other symptoms of poisoning gradually left within the next few hours, and the girl felt quite well the following day."

FROM the *Ipswich Advocate* of the 23rd November, 1892 :—

"Bitten by a Snake.—A twelve-year-old girl, named Elizabeth Gœbel, daughter of Mr. John Gœbel, of Mutdapilly, attended the Normanby State School yesterday. She left school at 4 o'clock in the afternoon, and went to the Mutdapilly Post Office for the mail. Going into the paddock a black snake, 2ft. 6in. long, chased her and bit her on the inside of the right ankle. She immediately went back to the school, where she told Mr. Allen what had happened, and Miss Pampling, Mrs. Porter, Mr. Jones (of the Mount Walker State School) and Mr. Wells were soon in attendance. They placed two ligatures on the injured leg and scarified the wound. A young girl, named Emily Shart, went on horseback to inform Mrs. Gœbel, a distance of three miles. The father not being at home, the child's uncle, Mr. Jesberg, went with a cart at once, and found that the child had been attended to with ammonia and whisky. The girl could not walk then, so she was put in the cart, and her uncle drove with all speed to town. At Willowbank they met the father, who accompanied them to Dr. Von Lossberg's surgery, where they arrived shortly before 7 o'clock, the relatives holding out very little hope for the recovery of the girl, as such a long time had elapsed between the child being bitten by the reptile and her arrival at the doctor's. She presented all symptoms of poisoning—the pulse could hardly be felt ; the skin was a deadly pale ; the pupils of the eyes were dilated ; the jaws set ; and the child was unable to swallow, while she was in a great stupor. Dr. Von. Lossberg put his patient under strychnine treatment, and injected $\frac{1}{16}$gr. twice within ten minutes, the effect being soon noticed after the second dose. The patient then fell into a sleepy state ; the pulse rose ; the skin improved in appearance ; and a few teaspoonfuls of tea could be swallowed. No pain appeared to be experienced, and the child when asked if she felt sleepy or drowsy replied in the negative. As the pupils of the eye and all other symptoms were improvod, she was allowed to sleep till about 8.30 p.m. The wound was dressed with a permanganate of potash solution, and the girl was taken home about half-past 10 o'clock. To-day she was quite lively and is doing very well. There is no doubt that but for the promptness with which Dr. Lossberg attended to the case it would have had a fatal termination ; and this is only another testimony to the success of the strychnine remedy in case of snakebite."

SNAKEBITE ANTIDOTE POCKET CASES

(*Made of strong polished metal, lined with silk velvet*)

For Dr. Mueller's successful treatment of Snakebite by the hypodermic injection of strychnine, containing *patent poison sucker*, best hypodermic syringe, two hypodermic needles, glass mortar and pestle, two tubes of strychnine tabloids, which will keep for years, and *full directions for use.*

Price, complete—£1, postage paid to all parts of Australia.

TO MEDICAL MEN 16s. 6d., postage paid.

L. BRUCK, 13 Castlereagh Street, Sydney.

THE MONTH.

NEW SOUTH WALES.

THE Directors of the Sydney Hospital have agreed to the following recommendations of the sub-committee appointed to inquire into the financial working of the institution :—1. That the salary of the Medical Superintendent in future should be £300 per annum, with board and quarters, instead of £500, the present rate of salary. They are of opinion that the tenure of this office should be fixed at three years, and that the officer be eligible but not entitled to re-election. 2. That only one of the Resident Medical Officers should receive the present rate of salary, viz., £100 per annum, with board and quarters. This officer should be called the Senior Resident Medical Officer, and his duties should be to give the anæsthetics as far as possible, and to take the place of the Medical Superintendent in his absence. The salary of the other Resident Medical Officers should be reduced to £50 per annum, and the committee recommend that the Resident Medical Officers only hold office for one year. As regards the out-patient Department, the committee recommend that the Regent-street Dispensary be closed, that the present system of paying District Surgeons should be abolished, and that the work should be done by the Assistant Honorary Medical Officers.

AT a recent meeting of the Directors of the Sydney Hospital the following motion of the Hon. Dr. Mackellar was agreed to :—"That with a view to making the vast clinical resources of this hospital available for the practical training of students attending the Sydney University Medical School, the Senate be forthwith invited to establish two lectureships in connection with the institution, one in clinical medicine and one in clinical surgery."

THE Board of Enquiry into the prevalence and prevention of lead-poisoning at Broken Hill reassembled at that place on January 15, the proceedings having been interrupted in July last by the late strike. The members are Dr. Ashburton Thompson, chairman ; Mr. W. M. Hamlet, F.I.C., F.C.S. ; Mr. John Howell and Mr. Josiah Thomas, vice Mr. Richard Sleath.

TWO cases under the "Diseased Animals and Meat Act" were heard at the Central Police Court, Sydney, on December 16, when the Board of Health proceeded against two graziers for having sent diseased animals to the Homebush yards for sale. Heavy fines were inflicted in both cases.

ON December 10 the Parramatta District Coroner concluded an inquest upon the body of a child named William Squire Jenkins. Some peculiar evidence was given by Madame Chalk, a professional electropathist, who had attended the child, and the jury, in returning a verdict of death from natural causes, strongly censured Madame Chalk for her conduct in the case by adding as a rider "that though they consider the evidence proves the witness Christina Chalk to be grossly ignorant of medicine, and utterly unqualified for practising in such cases, and deserving of the strongest censure for her conduct in the case, yet, having regard to the very critical state in which she found deceased, they cannot unanimously agree that death was caused or accelerated by her."

AT the Taree District Court, on December 6, Dr. N. R. Howse sued Dr. W. W. McGwire for libel. The plaintiff obtained a verdict for 10 guineas, with costs on the higher scale.

At the Sydney Central Police Court, on December 7, Dr. W. A. West, of the Glebe, sued J. Sands, a member of the Thistle Lodge of G.U.O.O. Free Gardeners, for £5 5s. for performing circumcision on defendant's child. Defendant contended that he was entitled, under the rules of the lodge, to medical advice for himself and family when required. For the plaintiff it was urged that the lodge attendance only covered sickness and injury by accident, and did not include an ordinary surgical operation such as had been performed on the child. The Bench decided in favour of the plaintiff, and awarded him the amount claimed, with costs.

The annual meeting of the Eastern Medical Association of Sydney was held on Tuesday, December 13. The gathering took the form of a dinner at the Grand Hotel, Waverley, to which were bidden representatives of the kindred societies in the metropolis. The officers for the ensuing year were elected, Dr. Collins becoming President, Dr. Edwards Vice-president, and Dr. Mullins Secretary. Among the company as guests were the Hon. J. M. Creed, Drs. Fiaschi and R. T. Jones, Presidents respectively of the British Medical Association, Royal Society (medical section) and Western Medical Association.

Four stained-glass windows have been placed in the Medical School of the University of Sydney by Dr. George Bennett, Mr. John Harris, Dr. P. Sydney Jones and Dr. Renwick.

The new Nurses' Home at the Prince Alfred Hospital, Sydney, was formally opened by Lady Jersey on December 13.

A marble bust of Sir Alfred Roberts was unveiled in the main hall of the Prince Alfred Hospital last month. The bust is executed by Signor Simonetti, and on the block below is the inscription, "Sir Alfred Roberts, Knight, to whose efforts the establishment of this institution is mainly due."

Dr. Harold E. Browne (late of Drs. Collingwood and Browne), of Summer Hill, has succeeded to the practice of Dr. S. Maguire at Molong.

Dr. W. R. Clay has removed from Rockdale to Arncliffe.

Dr. A. W. G. Cribb, formerly of Raymond Terrace, has been appointed Medical Superintendent of the Newcastle Hospital.

Dr. J. T. Dale, late of Lismore, is now practising at Tumberumba.

Dr. Gateward Coleridge Davis, late of Newcastle, has commenced practice as an Oculist at 173 Liverpool-street, Sydney.

Dr. J. A. Dick has commenced practice at "The Avenue," Randwick, a fashionable suburb of Sydney.

Dr. A. W. Douglas, formerly of Brushgrove, has commenced practice at Cootamundra in conjunction with Dr. Anderson.

Dr. Henry Martin Doyle has resigned the position of Resident Medical Superintendent of the Newcastle Hospital.

Dr. N. P. Elliott, late of Newcastle, has commenced practice at Summer Hill, near Sydney, in conjunction with Dr. D. Collingwood.

Dr. T. Harrison has left Brewarrina to commence practice in Sydney.

Dr. S. Herriot, late of Peak Hill, has succeeded to the practice of Dr. H. Lilie at Moree.

Dr. H. B. Hetherington has removed from Narrandera to Rockdale, a suburb of Sydney.

Dr. W. Hull has resigned his position of Resident Medical Superintendent of the Sydney Hospital.

Dr. F. W. Kane, late of Cooma, and Dr. Martin Doyle, late of the Newcastle Hospital, have been elected Medical Officers of the United Friendly Societies' Dispensary at Newcastle, in place of Drs. Elliott and Davis, resigned.

Dr. T. A. Machattie, of Bathurst, is about to leave for Europe on a twelvemonths' holiday. During his absence his practice will be carried on by Dr. G. Hurst, of Homebush (Sydney).

Dr. M. Magill, late of Goondiwindi (Qu.), has settled at Moree.

Dr. S. Maguire, late of Molong, has entered into partnership with Dr. E. T. Thring, of Petersham, near Sydney.

Dr. F. Norton Manning has been appointed a Member of the New South Wales Board of Health.

Dr. Angel Money, the well-known author of "Treatment of Disease in Children," and of the "Student's Textbook of the Practice of Medicine," has commenced practice as a physician at 205 Macquarie-street, Sydney.

Dr. H. Muller, a recent arrival, has succeeded to Dr. Hart's practice at Gunning.

Dr. R. E. Roth, of College-street, Sydney, returned to the colony by the M.M. s.s. "Ville de la Ciotat," after having spent six months in Europe, visiting the principal hospitals in London and on the Continent, and also enquiring into the latest developments of the Massage treatment in Stockholm.

Dr. R. F. Sinclair has succeeded to the practice of Dr. Harrison at Brewarrina.

Dr. E. R. Smith, of Cowra, is about to leave on a lengthy trip for Europe. During his absence his practice, we understand, will be carried on by Dr. W. R. Cortis, of Macquarie-street and North Sydney.

Professor Dr. T. P. Anderson Stuart, of the Sydney University, has been appointed Medical Adviser to the New South Wales Government, Health and Emigration Officer for the port of Sydney, and President of the New South Wales Board of Health, vice Dr. F. Norton Manning, resigned.

Dr. E. T. Thring, of Petersham, has taken Dr. S. Macguire, late of Molong, into partnership with a view of devoting himself more especially to abdominal surgery, including gynæcological operations. He has taken the rooms in Macquarie-street, Sydney, lately occupied by Dr. Cortis.

Dr. W. C. Watson, late of Stanmore-road, Enmore, has removed to Leadville, 241 miles W. of Sydney.

Dr. A. M. Will has commenced practice at 149 Elizabeth-street, Hyde Park, Sydney.

NEW ZEALAND.

Mr. Rawdon Briggs Robinson, L.R.C.P. *et* R.C.S. Edin. 1868, L.S.A. Lond. 1869, L.M. Mid. 1863, formerly House Surgeon of the Christchurch Hospital, was found dead in bed, on December 2, at his residence at Sydenham (Christchurch). Heart disease is supposed to have caused his death. The deceased gentleman arrived in Christchurch 11 years ago.

Dr. A. Douglas, a recent arrival, has commenced practice at Masterton.

DR. H. MCC. INGLIS, late Resident Surgeon Superintendent of the Totara Hospital at Ross (Westland), has commenced practice at Hororata, 43 miles S.W. of Christchurch.

DR. B. LOCKING has removed from Opotiki to Ashurst, near Palmerston North.

DR. T. N. WRIGHT, a recent arrival, has settled at Waihi, near Tauranga.

QUEENSLAND.

AT a conference of local authorities called by the Mayor of Brisbane to discuss the question of providing a sanatorium for the treatment of epidemic diseases, recently held in the Municipal Council Chambers, Brisbane, the following resolution was carried :—"That it is desirable to have a sanatorium for Brisbane and the suburbs, and that the Government should provide, control and maintain the same."

THE Committee of the Brisbane Hospital have asked the authorities of the Melbourne University to recognize the practice of their institution.

DR. PATRICK SMITH has been appointed Medical Officer for the care, inspection and supervision of lepers detained in the lazaret on Stradbroke Island.

DR. G. W. F. PAUL has been appointed Medical Officer of the Convalescent Home at Sandgate.

SOUTH AUSTRALIA.

AT the recent annual commemoration of the Adelaide University W. R. Cavenagh Mainwaring and A. E. Gibbes received the M.B. *et* Ch.B. degrees.

TENDERS have been accepted for the erection of the new Angas wing of the Adelaide Children's Hospital. The amount is £5,300, and will be defrayed solely by the Hon. J. H. Angas, M.L.C.

DR. E. C. STIRLING, of Adelaide, has received through the Consul-General for the Netherlands a massive gold medal, with accompanying documents stating that it had pleased Her Majesty the Queen Dowager of the Netherlands to confer on Dr. E. C. Stirling the gold medal for science and art as a token of appreciation of the interest he had taken in the Netherlands scientific collection by his donation to the Museum for Natural History at Leyden. The inscription occupies one side of the medal, while a portrait of the young Queen of the Netherlands embellishes the other.

TASMANIA.

AN Act to provide for the Establishment of Hospitals for Inebriates was assented to by His Excellency the Governor of Tasmania on December 21 last.

VICTORIA.

THE first authorised cremation in Australia took place on December 11, when the body of a Chinese leper was cremated at the Quarantine Ground, Port Nepean. The body was placed in a shell on three tons of wood soaked with kerosene. A light was applied by Dr. Gresswell, and in three hours it was burned almost to a cinder. The few white bones that were left were placed in a small tin box and buried.

MISS E. A. M. O'HARA, daughter of Dr. O'Hara, of Melbourne, has obtained the M.B. degree of the Melbourne University.

MR. JOHN ADAM SWINDELLS, M.R.C.S. Eng. 1879, late of Glenlyon, is dead.

MR. JAMES WILLIAM HENRY VEITCH, L.S.A. Lond. 1849, formerly of the Colonial Emigration Service, died in November last at his residence, 22 Curran-street, North Melbourne.

DR. F. C. BOND, late of East Malvern, is now practising at Heathcote.

DR. AUBREY BOWEN, of Melbourne, has been appointed by the Government to represent the colony at the Eleventh International Medical Congress to be held at Rome in September next.

DR. ANTHONY COLLING BROWNLESS, Chancellor of the Melbourne University, has been created a K.C.M.G.

DR. MANNINGTON CAFFYN, of South Yarra (Melbourne), left for England by the s.s. "Port Pirie."

DR. G. W. DAMMAN has returned to the colony from his studies in England.

DR. W. H. DUTTON, late of St. Kilda, has succeeded to Dr. Sturdee's practice at Frankston.

DR. F. LANE has commenced practice at Mooroolbark, 20 miles from Melbourne.

DR. A. SELLAR, late of Toorak, is now practising at Lorquon, 265 miles N.W. of Melbourne.

DR. R. R. STAWELL has returned from England and commenced practice at 61 Collins-street, Melbourne.

DR. A. H. STURDEE has removed from Frankston to Bendigo.

DR. J. L. THOMPSON, a new arrival, has settled at Castlemaine.

DR. J. E. USHER has returned from his trip to Europe and America, and resumed practice at 89 Collins-street, Melbourne.

DR. ARTHUR VORES, late of Macquarie-street, Sydney, is now practising at Ballarat.

DR. R. WALLACE, homœopathic physician, formerly of Prahran, and late of Millicent, S.A., is now practising at 193 High-street, St. Kilda.

WESTERN AUSTRALIA.

THE death is announced of Mr. Robert John Lepper, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1877, Resident Magistrate at Busselton, and Government Medical Officer for the Vasse District.

MEDICAL APPOINTMENTS.

◆

Browne, Harold, M.R.C.S.E., L.R.C.P. Lond., to be Government Medical Officer and Vaccinator for the district of Molong, N.S.W.

Esler, Alfred William, M.D. *et* Ch. M. Roy. Univ. Irel., to be Public Vaccinator for Heathcote, Vic., vice Dr. H. B. Clark, resigned.

Florance, James William, M.D. *et* Ch. B. Melb., to be Public Vaccinator for Mooroopna, Vic., vice Dr. C. J. Trood, resigned.

Forrester, Robert Alexander Paul, M.B. *et* Ch. M. Ed., to be Public Vaccinator at Wycheproof, Vic.

Gunst, Charles Werner, L.R.C.P. Ed., L.F.P.S. Glas., to be Health Officer for shire of Euroa, Vic., vice Dr. J. Tuthill, resigned.

Herriot, Stuart, L.R.C.P. *et* R.C.S. Edin., to be Govt. Medical Officer and Vaccinator for the district of Moree, N.S.W., vice Dr. H. Lilie, resigned.

Inglis, Herbert McClelland, M.B. *et* Ch. M. Ed., to be Public Vaccinator for the districts of Malvern and Hororata, N.Z.

Little, William, M.D., to be Public Vaccinator for the district of Amuri, N. Z.

Locking, Benjamin, L.R.C.P. Lond., M.R.C.S. Eng., to be Public Vaccinator for the district of Waitara, N.Z.

McCarthy, Henry, L.R.C.S. Irel., to be Public Vaccinator for Tatura, Vic.

Mackay, William, M.B. *et* Ch. M. Edin., to be Health Officer and Public Vaccinator for the district of Heywood, Vic.

Nolan, Lyster Andrew, L.R.C.S. Irel., L.K.Q.C.P. Irel., to be Health Officer for Bruthen and shire of Tambo, Vic.

Peare, Humphreys Robert Henry, L.K.Q.C.P. Irel., to be Govt. Medical Officer and Vaccinator for the district of Nymagee, N.S.W., vice Dr. J. C. L. Colpe, resigned.

Sellar, Alexander, M.B. *et* Ch. M. Aberd., to be Public Vaccinator for Lorquon, Vic.

Smith, Ventry Alexander John, L.R.C.S. Irel., L.K.Q.C.P. Irel., to be Govt. Medical Officer and Vaccinator for the district of Burrowa, N.S.W.

Woodforde, William Sidney Ridout, M.B. *et* Ch. M. Ed., to be Govt. Medical Officer at Goondiwindi, Qu., vice Dr. Maxill, resigned.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Müller, Hans, State Exam. Certif. Munich 1889.

MacLeod, Charles Gordon, M.B *et* M.S. Edin. 1889.

Will, Alick Murray, M.B. *et* M.S. Aberd. 1888.

For Additional Registration :—

Leahy, John Patrick Daunt, M. Ch. Sydney 1892.

Lawes, Charles Herbert Essery, M. Ch. Syd. 1892.

NEW ZEALAND.

Wright, Thomas Nesbitt, M.R C.S. Eng., L R.C.P. Lond. 1888.

Douglas, Alexander, M.A., M.B., Ch. M. Edin.

Hogg, Robert Henry, M.B. *et* Ch. B. New Zealand ; M.R.C.S. Eng. ; L.R.C.P. Lond.

QUEENSLAND.

Lister, Henry, M.B. Syd. 1892.

Plummer, Walter George, L.R.C.S. Irel. 1869 ; L.K.Q.C.P. Irel. 1870.

VICTORIA.

Sexton, Hannah Mary Helen, M.B. *et* Ch. B. Melb. 1892.

Gemmell, William, M.B. *et* C.M. Glas. 1890.

Thompson, James Livingstone, M.B. *et* Ch. M. Edin. 1892.

Lane, Frank, L.S.A. Lond. 1884 ; L.R.C.P. Lond. 1887 ; M.R.C.S. Eng. 1887.

Vores, Arthur, L.S.A. Lond. 1879 ; M.R.C.S. Eng. 1879.

Additional Qualification Registered :—

Mullaly, William Thomas, Dip. San. Sci. Irel. 1886.

WESTERN AUSTRALIA.

Hitch, Frederick, L.S.A. Lond. 1879 ; M.R.C.S. Eng. 1880 ; L.R.C.P Lond. 1881.

Potter, Walter, M.R.C.S. Eng. *et* L.R.C.P. Lond. 1892.

BIRTHS, MARRIAGES, AND DEATHS.

⁂ The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

ALLEN.—On the 8th December, at Kingston, Vic., the wife of Dr. W. R. Allen, of a son.

BAIRD.—On the 15th December, at Healesville, Vic., the wife of J. C. Baird, B.A., M.B., B.S., of a daughter.

BLACK.—On the 1st December, at Fitzroy, Melbourne, the wife of Archibald G. Black, M.B. *et* C.M., of a son.

CARROLL.—On the 12th December, at Wangaratta, Vic., the wife of Dr. W. J. Carroll, of a son.

ESLER.—At Heathcote, Vic., the wife of A. W. Esler, M.D., of a son.

HODGSON.—On the 26th November, at Windsor, Melbourne, the wife of Dr. G. J. Hodgson, of a daughter.

LINDSAY.—On November 19, at Auckland, the wife of Dr. P. A. Lindsay, of a daughter.

LUKOWITZ.—On the 13th December, at Adelaide, the wife of Dr. M. von Lukowitz, of a daughter.

M'KILLOP.—At Goulburn, N.S.W., the wife of Robert M'Killop, F.R.C.S.E., of a son.

MANLY.—On the 14th December, at Beeac, Vic., the wife of R. A. E. Manly, M.B. *et* C.B., of a son.

MULLALLY.—On the 25th December, at Ballarat, Vic., the wife of W. T. Mullally, M.D., M. Ch., of a daughter.

ORTON.—On the 16th December, at Stanthorpe, Qu., the wife of Dr. A. Orton, of a son (stillborn).

WILKINSON.—On December 6, at 149 Macquarie street, Sydney, the wife of W. Camac Wilkinson, M.D., of a son.

WOODS.—On the 11th December, at Albury, N.S.W., the wife of W. Cleaver Woods, M.D., M. Ch. Edin., of a son.

MARRIAGES.

BARRETT—JOHNSON.—On the 1st December, at the Presbyterian Church, Toorak, Annie Jessie, only surviving daughter of the late Archibald Johnson, Toorak, to Dr. John Edward Barrett, South Melbourne.

MARSHALL—MACINTOSH.—November 25, at St. Andrew's Cathedral, Sydney, Fred W. Marshall (M.B., C.M. Edin.), to Annie, eldest daughter of H. B. Macintosh, Balmain.

MULLER—DEVLIN.—December 15, at St. Andrew's Cathedral, Sydney, Dr. Hans Müller, of Gunning, N.S.W., to Helen Mary, second daughter of James Devlin, Ashfield.

NOLAN—KELYNACK.—On the 21st December, at the Wesleyan Church, Stanmore, Sydney, H. Russell Nolan, M.B., of Toowoomba, Queensland, to Emma Florence, eldest daughter of the late Rev. Wm. Kelynack, D.D., of Newington College, Stanmore.

Two or three ladies or gentlemen desiring change of air can have superior accommodation and special attention. "Avondale," Victoria Parade, Manly.

MR. BRUCK can supply *The Lancet* from January 1 1893, English date, at 42s. p.a. in Sydney, and 45s., postage paid, to all parts of Australia.

NEW MEDICAL BOOKS.*

Treatise of Diseases of the Throat, with 3 col. plates and 125 woodcuts. By F. H. Bosworth, M.D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College, New York. 28s.

American Textbook of Surgery, General and Operative. Edited by Professors Drs. Keen and White. Profusely illustrated. 32s.

Naphey's Modern Therapeutics : General Medicine and Diseases of Children. By A. J. Smith, M.D., and J. A. Davis, M.D., 9th ed., revised and enlarged. 25s.

General Orthepædics, including Surgical Operations. By A. Schreiber, M.D. Illus. 10s. 6d.

Manual of Practical Medical Electricity. By Dawson Turner, M.D., F.R.C.P. Illus. 7s. 6d.

Starling's Elements of Human Physiology. Illus. 6s. 6d.

Surgical Treatment of Neuralgia. By Wm. Rose, F.R.C.S. 4s. 6d.

Medical Microscopy : A Guide to the use of the Microscope in Medical Practice. By Frank J. Wethered, M.D. 9s.

Surgery, its Theory and Practice. By W. J. Walsham, F.R.C.S. 4th ed., with 335 illus. 12s.

Medical Electricity : A Practical Handbook for Students and Practitioners. By W. E. Steavenson, M.D., and H. Lewis Jones, M.D., M.R.C.P. Illus. 9s.

Diseases of the Heart (The Diagnosis of), By A. E. Sansom, M.D., F.R.C.P. 28s.

The Brain and Spinal Cord (The Structure and Functions of). By Victor Horsley, F.R.C.S., F.R.S. 10s. 6d.

The Diseases of Children, Medical and Surgical. By Henry Ashby, M.D. Lond., F.R.C.P., and G. A. Wright, M.B. Oxon., F.R.C.S.E. New ed., with 178 illus. 24s.

Cancer of the Mouth, Tongue, and Œsophagus. By F. B. Jessett, F.R.C.S. 6s.

Alcoholism. By Dr. Usher. 3s. 6d.

Embryology. By Dr. Herting. 21s.

Diseases of Women. By Dr. Skene. 2nd. ed. illus. 28s.

Pharmacy, Materia Medica, and Therapeutics. By Dr. Whitla. 6th ed. 10s. 6d.

---

* All these books are stocked by L. Bruck, 13 Castlereagh-street, Sydney, the only medical bookseller in these colonies.

REPORTED MORTALITY FOR THE MONTH OF NOVEMBER, 1892.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhoea.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	298	178	86	...	2	1	3	1	11	14	21	16	4	...	1
Suburbs	275,615	1,007	376	203	...	5	12	7	5	23	29	34	20	13	3	1
NEW ZEALAND.																
Auckland	28,613	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Christchurch	16,223	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Dunedin	22,376	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
Wellington	31,021	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
QUEENSLAND.																
Brisbane	56,075	181	103	57	...	..	4	...	1	28	13	9	7	2	...	...
Suburbs	37,582	127	53	40												
SOUTH AUSTRALIA	328,424	875	295	105	...	...	9	...	2	19	31	25	23	10	...	5
Adelaide	38,240	98	65	18	...	...	1	...	...	8	9	4	10	5	...	...
TASMANIA.																
Hobart	34,408	102	51	18	...	...	4	...	...	3	4	6	7	1	...	...
Launceston	22,133	69	48	21	...	...	1	1	2	7	1	8	5	3	...	...
Country Districts	96,889	298	78	...	...	...	1	...	1	1	1	...	...	...	...	...
VICTORIA.																
Melbourne	71,881	143	46	197	...	1	7	2	3	33	64	41	49	29	3	6
Suburbs	417,304	1,243	497													
WESTERN AUSTRALIA*	57,274	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR NOVEMER, 1892.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	97·6	69·	44·6	29·813	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	...	...	...	...	...	...	...	..
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	94·8	72·8	57·2	29·954	3·116	11	69	E.
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	...	...	...	...	...	...	...	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	...	...	...	...	...	...	...	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	...	...	...	...	...	..	...	...
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	...	...	...	...	...	...	...	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	90·8	61·8	45·	29·840	2·74	11	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	...	...	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	86·9	66·4	54·5	29·990	2·88	16	73	N.E.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	...	...	...	...	...	...	...	.

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

A CASE OF CROSSED PARALYSIS FROM CEREBELLAR DISEASE.

By Angel Money, M.D., F.R.C.P. Lond.

The patient was a man, aged 50, first seen in January, 1890, who had served for many years as a soldier, chiefly in India, but who now followed the occupation of a coachman. Twenty years ago he had a hard chancre, followed by secondary skin eruption and sore throat, for which he was treated by the army surgeon and apparently cured. His family history was good, and he had not suffered from any other serious illness. The present affection began about a year previously with pains shooting up the back of the head and down the arms, chiefly of the right side. He experienced occasional attacks of giddiness in which he tended to turn towards the right side. His bowels were very obstinately constipated; at times he had difficulty in commencing to make water, at other times the urine escaped with a rush involuntarily. He was troubled somewhat with satyriasis, the sexual act being otherwise apparently unimpaired.

The pain at the back of the head increased in severity and became more constant; occasionally there was frontal headache; he slept badly; the intellect was fairly clear; the memory for recent events appeared lately to be impaired. For three months past he had suffered on many days from nausea on rising in the morning, and this had generally ended in severe retching and vomiting; during this period he had not lost appetite for breakfast, and the gastric symptoms usually mended after he had been up some minutes. It often seemed as though the vomiting was excited by the assumption of the erect posture; it could occasionally be warded off by postponing the hour of rising; it was frequently paroxysmal, occurring for two or three days running and then missing some days. Romberg used to insist on the circumstance that nausea did not attend cerebral vomiting, yet this experience is not invariable. There were no reasons for believing that the patient was addicted to alcoholic excess, and spirits always increased his headache. The gait was decidedly reeling, and like that of a drunken man; curiously enough this was almost always more marked in the first half of the day, and tended to mend considerably in the afternoon. The headache was generally more marked at night-time, and was the chief cause for his not sleeping well. He could walk some yards without falling and with the aid of a stick; on standing with the eyes shut the tendency was to fall towards the right. He was decidedly weaker on the right side of the body; the grasp of the right hand was very feeble. He was right-handed. The articulation was not apparently altered, and his speech did not seem to be changed. There was no nystagmus and no tetanoid rigidity. The knee-jerk was exaggerated on the right side and there was a marked ankle clonus; a front-tap contraction was easily obtained. There was exaggeration of the triceps and biceps deep reflexes on the right arm. The cutaneous reflexes were absent on the right side; the left plantar reflex was excessive, as also was the left cremasteric reflex.

Except for some delay of the sensation of pain produced by sticking the sole of the right foot with a pin, there was no disturbance of sensation, either to touch or temperature.

The pupils contracted naturally on accommodation, but sluggishly to mere light. Pinching and faradizing the skin of the neck caused well-marked dilatation of the pupil on each side. The tongue was always thrust out to the *left*, and its movement was decidedly jerky; in common hemiplegia of the right side the tongue is always put out to the right. Further, the tongue was wasted somewhat on the left side, and marked fibrillary tremors were obvious in the left half. Fibrillary contractions were seen in the muscles of the arm and leg. There was a jerkiness in the weak movements of the right arm, somewhat like that noted in disseminated sclerosis. There was no optic neuritis.

The patient improved rapidly under the influence of iodide of sodium, given in scruple doses three times a day. He lost the headache and giddiness; though the weakness of the right side was still present, yet it improved markedly.

In this case of crossed paralysis the tongue was paralysed and wasted on the left side, whilst the arm and leg were paralysed on the right side. A single lesion, causing pressure on the pyramidal tract on the left side of the brain about the site of the origin of the hypoglossal nerve, would best explain the principal symptoms; it is unlikely that there was more than one chief lesion, and this was almost certainly gummatous in nature. The apparent preservation of good articulation would seem to prove that the disease had not disturbed the fibres of the hypoglossal nerve concerned in the innervation of the lips, the orbicularis oris being supplied by nerve cells near the hypoglossal nucleus. The peculiar reeling gait, the matutinal paroxysmal vomiting, and the occipital headache point to disease of the middle lobe of the cerebellum, though it may well be believed such symptoms are insufficient to conclusively establish its existence. Still it is known that tumours of the cerebellum may compress and paralyse the hypoglossal nerve as it proceeds from the medulla oblongata, whilst at the same site it may press upon the pyramidal tract above its decussation.

That the gumma did not arise on the surface of the medulla oblongata would appear to be demonstrated by the absence of paralysis of the palate and of the vocal cord on the same side as the lingual paralysis; for it is usual, though perhaps not invariable, to find the palate, vocal cord and tongue all affected on the same side when a tumour arises at the superficial origin of the hypoglossal nerve on the surface of the medulla oblongata.

In other cases of crossed paralysis the hemiplegia may be associated with paralysis of the third, fifth, sixth or seventh cranial nerve.

205 Macquarie-street, Sydney,
January, 1893.

NOTES ON TWO FATAL CASES OF AN ACUTE PARALYSIS (LANDRY'S).

By Edward S. Stokes, M.B. et Ch.M. Syd.,
Port Macquarie, New South Wales.

◆

I am aware that the following notes are very brief and wanting in some respects, but still I think the cases are of sufficient interest to be placed on record :—

The first case was not seen by me, but by the friends' description it coincided very closely with the second.

No. 1.—J. McK., 26, farmer, residing at Fraser's Creek, Hastings River, was taken ill on October 3. He presented the same symptoms as No. 2. Twenty-four hours before death his legs became paralysed, and he died on the 6th, seemingly in the same way as No. 2. He was buried on the 8th.

No. 2.—D. McK., 20, farmer, brother to the above. He was absent from home during his brother's illness, and only returned after his death. He did not touch the body of his brother, or even go into the room where it was lying. He only went past the door once. He went back to his work—about eight miles from home—on the 8th, and on the 10th first became ill. He complained of pains in the head and back, retching, and felt generally "out of sorts." He worked for two days in this condition, and as he did not improve he returned home on the 12th. His retching had then stopped, but he complained of weakness of legs, sore throat and difficulty of swallowing.

I first saw him at 5 p.m. on the 13th. His condition then was: Pulse 112, full and firm; temperature, 102; tongue coated; no vomiting; bowels open; respiration seemed somewhat laboured; no paralysis; head slightly retracted; complained of sore throat and difficulty in swallowing; no inflammation in throat and no paralysis of palate; some regurgitation of fluids through nose if head be not raised up; varying occipital headache and occasional cramps in legs; no physical signs in chest or abdomen; pupils normal and reacting normally. He was very restless. I gave a quarter-of-a-grain of morphia by the mouth. After this he had a fair night, but towards morning became restless again; morning temperature 103; pulse 120; was quite free from pain and felt better. There was no paralysis of limbs, but the respiration still was laboured, the rapidity not being out of proportion to the pulse rate.

I left about 6.30 in the morning, and did not see him till 7.30 of the same evening. Then he was literally dying of asphyxia, the intercostal muscles being absolutely paralysed. The right arm was motionless, but he could move the fingers a little. The extraordinary muscles of the neck were labouring to their utmost, and the diaphragm was also working. There were no sensory disturbances. He had not been able to pass water all day. About half-a-pint was drawn off. The right arm was the only limb paralysed. The chest was paralysed on both sides. I did not examine the spleen. He was restless in the extreme at the last, struggling and gasping for breath; but he remained perfectly conscious and could speak until within a quarter-of-an-hour of his death, which occurred about an hour after my arrival. Towards the end he could not swallow at all.

In connection with these cases I might mention that of a boy about 10 years old from the same house, whom I saw about two weeks before the first fatal case occurred. The child had been ill a few days. He complained of feeling out of sorts and of weakness in his legs and right arm. When I saw him his gait was a little unsteady, and his right arm decidedly paretic, the deltoid especially being almost paralysed. In the course of a few weeks his legs recovered completely, but his arm moved somewhat slower, though it also improved. The deltoid and muscles of the upper arm were perhaps a little wasted the last time I saw him. I believe since then the whole limb has become much stronger, and under these circumstances I expect it will recover. There were no sensory disturbances, and I have no reason to suppose the lesion was peripheral.

The interest of these cases lies in the obscurity of the diagnosis and ætiology. We have three cases occurring practically in the same house, all within a few weeks of each other, and all presenting one common symptom, viz., paralysis of muscles without sensory disturbances. This distinction at once binds us down to either an acute anterior poliomyelitis or to that somewhat mysterious group known as Landry's paralysis.

The case of the child might possibly belong to the first-mentioned group, but the fact that the muscles were never at any time absolutely paralysed almost completely negatives this.

With regard to the two fatal cases, it is almost impossible to group these under this heading. I shall briefly tabulate the facts in favour of the view that they can be regarded as cases of Landry's paralysis :—

1. The patients were both males between the ages of 20 and 30.
2. The purely motor paralysis, progressive in character, apparently pursuing an ascending course in No. 1.
3. The early appearance of bulbar symptoms, and the death from respiratory paralysis.
4. The power that No. 2 possessed to move the fingers while the rest of the arm was paralysed.

Case No. 2 may be regarded as irregular, the arm and the muscles of respiration being affected first.

If now we have safely relegated these cases to Landry's paralysis, we are still confronted with the question of the etiology of the disease. All text books mention a number of conditions which have been noted as antecedent to attacks of this description, but no causal relation has been made out. They are supposed to be due to some form of system poisoning; and this theory will certainly be upheld by the fact of two—possibly three—cases occurring in the same place within a short time of each other. They must have been caused by some specific infection, and this opens the interesting question as to whether Landry's paralysis is a specific disease or merely a dumping ground for cases that we cannot otherwise explain. I have found no mention in books of these occurring endemically.

In seeking for a source of infection the only thing I can find is that they draw their water from Fraser's Creek, which runs through very low ground and through a mineral bed that contains large amounts of arsenic. Arsenic, as far as I know, though it may give rise to peripheral neuritis, does not have any effect on the central nervous system. Besides, they presented noneof the signs of acute or chronic arsenical poisoning.

I may say that since the family came to live at that creek they state they have always been ailing slightly, though previously to that they were perfectly healthy.

I should therefore look for the source of the infection in the water they drink, but what it may be it is impossible to say—probably some ptomain or some specific micro-organism.

I regret that I was unable to obtain a *post-mortem* examination on either of the cases.

SERIES OF CASES OF DISEASES OF THE NERVOUS SYSTEM.

BY THOS. BAIN WHITTON, M.D., Q.U.I. OF REEFTON, NEW ZEALAND.

◆

V.—TETANY.

TETANY is best defined by Strumpell as a neurosis characterized by paroxysmal tonic convulsions in certain groups of muscles—synonemes, tetanilla, intermittent tetanus.

Corvisart in 1852 was the first to propose the name of tetany, but it is mainly to the observations of Trousseau that we have been made acquainted with the more important features of this disease. There are four distinct forms of this disease—forms which differ, in the causes which give them origin, in their course and in their termination :—1. The rheumatic or epidemic, special to the continent of Europe and not often seen in England or America, and rarely fatal. 2. That due to debilitating causes following a chronic course, but rarely fatal—some of these causes are chronic diarrhœa, prolonged lactation, pregnancy, exposure to cold, &c. 3. The removal of enlarged thyroid glands has been followed by tetany, and that frequently proving fatal. Billroth records 13 cases of tetany following removal of the thyroid, and six of these proved fatal. 4. Tetany of a very fatal form sometimes follows dilatation of the stomach and the washing of it out. Kussmaul records several such cases.

Both sexes suffer from this disorder, but females are the most subject to it, the puerperal state and lactation predisposing thereto. The convulsive stage is generally preceded by certain symptoms, such as pain or a feeling of weakness, stiffness, tingling or even burning sensations in the extremities, chiefly marked in the arms. The symptoms are bilateral and symmetrical, and the flexor muscles are affected in the upper, and the extensor ones in the lower extremities. The fingers are those which contract first, then the arms, next the toes and legs. It is spasm of the interorsei muscles which gives rise to the characteristic postures of the fingers, being in apposition to one another and placed as if holding a pen; or, as Trousseau says, the "accoucheur's hand." The hands are flexed upon the wrists, the elbows but slightly, whilst the upper arm is pressed against the chest. The toes are drawn together and towards the sole of the foot, the big toe being drawn under them; the dorsum of the foot is arched, and the heel drawn up, resembling tallipes equinus, whilst the leg and thigh are rigidly extended.

In a very severe form—for it must be remembered that tetany may attack only one arm or even but a few muscles of the fingers, such as causing the thumb to flex on the palm—the sterno-mastoid muscles become rigid, then the jaws tightly clench from spasm of the masseters, speech being much embarrassed, and respiration seriously interfered with.

During the attack the muscles feel hard like a board, causing severe cramp-like pain—spinal weakness producing inability to sit up for some days after an attack, leaving the patient in a limp condition, dreading the least noise or jar, as such will induce at once a return of the spasms. The attack may be only a few minutes or it may be some hours in duration. After variable intervals they are again renewed—it may be in some minutes, in an hour or two, or only after several days, and such attacks of paroxysms may last over several months; but the termination is always favourable in the first two forms above described. Consciousness is never lost during the attacks, the person being aware of what is said by the people around and of what is being done to him, though unable to speak. During sleep the spasms occur. The persons may not know that such are present, being oftentimes awakened by the pain and cramp which follows after. The spasm of the muscles will not cease suddenly, but gradually, one muscle relaxing after the other, unless chloroform is administered or cold applied to the extremities; and in a case to be related, after liq. amm. carb. was inhaled all the muscles suddenly relaxed.

Gowers says that the motor nerve cells of the spinal cord and medulla are the parts chiefly deranged, and the way in which the cells in rare cases seem to undergo subsequent atrophy suggests that the disturbance is a primary one of the cells themselves, causing an increase in the excitability of the motor nerves. Strumpell says it is uncertain whether the central or the peripheral nerves are affected.

Trousseau noticed that a fresh paroxysm can always be induced by pressure upon the larger arteries and nerves of the arm; and in the case of a young girl, to be related, the very act of fanning her face or catching hold of her arms would immediately cause the spasms to return.

Case 1.

Mrs. L. O., married, aged 37 and has three children, tall active person of strong neurotic tendency, but the father and mother are robust and healthy with no history of any nervous disease, and no other member of the family has suffered from tetany. She says that from girlhood she was never very robust, and suffered when going to school from her feet being very cold and of a white colour, not the usual purplish blue of defective circulation—possibly a form of Raynaud's disease. About 12 years ago, and when five months married, she received a fright on seeing some people fall into a river and struggle to the bank. She at once felt cold and shivering. The extremities became rigid, and the fingers and toes flexed.

Taken to her home in this condition, she remained for six weeks having spasms at the rate of six or seven a day and lasting from half-an-hour to an hour. The medical man in attendance ordered her a series of hot baths, but they had no effect in relaxing the muscular contractions. Gradually the attacks became less severe and appeared at longer intervals. When under a course of quinine and strychnine they finally disappeared.

She enjoyed good health, and passed through her first confinement favourably, but a few days afterwards had a return of the tetany in its worst form. On this occasion much benefit was derived from a course of pot. iod. and pot. brom. with belladonna plasters along the whole course of the spine. The inhalation of chloroform relieved the spasms temporarily, but cold applied to the extremities had no effect in so doing.

Mrs. L. O. relates several painful experiences which happened to her about this time in connection with the suddenness of the attack of the tonic convulsions. On one occasion she was looking for a reel of cotton behind a chest of drawers. Having picked it up she felt her extremities become rigid, and then she lay on the floor for two hours unable to move or cry out, though during that time several persons had come into the room looking for her. On another occasion she was walking along a by-street when she was suddenly seized with a paroxysm, fell down with all the muscles rigid and hard, unable to speak or inform the bystanders of her condition, who suspected her of alcoholism; and yet during both attacks she was fully conscious of what was said, and of what the people around her were doing.

About this time her husband accidentally discovered that the inhalation of ordinary amm.

carb., when the paroxysm was on, at once caused relaxation of the muscles and a shortening of the duration of the attack. Such benefit did she derive from its use that it was always kept at hand in the bedroom, and when she went from home she carried it with her.

It was sometime after the birth of her second child, five years ago, when I saw her during an attack of tetany. The fingers were in the form of the accoucheur's hand; the fingers flexed upon the wrist; the forearm partially folded over the chest, with the upper portion tightly pressed against the chest; the legs and thighs were rigidly extended; the heels drawn up with the toes flexed upon the sole; the masseters and sterno-mastoid muscles were rigid, and a tendency to opisthotonos. During the paroxysm, speech was impossible, but she kept on moaning; when the tonic convulsions ceased, which took place at once on inhaling the smelling salts, the forearm would fall limply to the side, with the fingers extended, the feet would resume their normal position, while she would keep saying "my back, Oh, my back!" Her husband had found by experience that the longer the rigidity of the muscles lasted, which was often over an hour, until he used the amm. carb., the more prolonged was the after depression and pain in the spinal column—sometimes she would be three or four days lying immovable on her back. She always felt very cold after the attack ceased, and had to be wrapped up in blankets and given warm drinks. She generally had a forewarning that the tetany was coming on by a feeling of numbness over the back, extending down to the limbs. The muscles which first became rigid often varied, sometimes the fingers, at another time the toes, and towards the termination of an attack, after it had lasted some weeks, only a few muscles would become rigid, such as a finger, or a hand, or foot. At the commencement of the attack she would have as many as six or seven paroxysms a day, but the inhalation of ammonia, the application of belladonna to the spine, and the use of hyd. chloral and pot. brom. lessened their severity to such a degree that she did not even dread their on-coming. She never suffered from diarrhœa, nor did she nurse her children. During each term of pregnancy slight spasms were always present, frequently occurring during sleep, for she was often awoke by her husband applying ammonia to her nostrils. For weeks after these attacks the least noise, such as slamming the door, or any trivial excitement would immediately induce muscular contractions. I never found that compressing the arteries or nerves of the arms would induce a fresh paroxysm as Trousseau states; the reflexes were greatly exaggerated, both during her normal state and during an attack of tetany, but ankle clonus was never present.

CASE 2.

A very healthy girl of 17 years received a severe wetting, whilst riding a long journey, to which she was not accustomed. As the menses were present they suddenly ceased on account of the chill—inflammation of the ovaries and their appendages followed, and on the third day after the ride she had an attack of tetany, which frightened her friends so much that she was sent home. When I saw her the paroxysms would come on at the rate of 15 to 20 in the 24 hours; the hands and feet assumed the forms described in the last case, but she would scream and talk; as the masseter muscles were not rigid, the slightest noise, even fanning her face, would set her off into convulsions; pressure on the right ovary also caused them, or suddenly grasping her arms, asleep as well as awake. The inhalation of ammonia was useful in cutting short the rigidity of the muscles, but it did not prove so beneficial as in Mrs. L. O's. case. The application of hot compresses over the ovaries and hot water bottles to the feet and axilla gave most relief, with hyd. chloral. and pot. brom. in grs. xx. doses ter die. As in this case tetany was caused by ovaritis and suppressed menses, so it did not moderate for fully six months, until the functions were restored; the ovarian vomiting complicated matters very much, drugs having to be suspended *pro. tem.* The patient was kept secluded in a dark room, whilst warm applications and repeated blistering to the iliac and inguinal regions controlled the vomiting, when the pot. brom. and hyd. chloral was again administered with success. The inhalation of chloroform was never tried in this case, as the ammonia was always at hand and could be safely given by the friends. This patient was unable to leave her bed for six months, and as the right ovary was the most painful and tender, to such a degree that she was unable to extend the thigh and leg of that side, which, in consequence became contracted, and afterwards required a long course of passive motion and massage to regain its normal condition. During her convalescence, which extended over another three months, she had very few paroxysms, possibly one or two in a week, and then they were only in one or other extremity, such as a toe or a finger. It is three years ago since she had this attack of tetany, and has never had a return of it since then, keeping in excellent health and her menstrual periods regular. There is a neurotic tendency in the family, one married sister having had an outbreak of puerperal mania after her first confinement. This young girl never had any "back pain" after the convulsions had passed off, but when the attacks were so frequent during the commencement of her illness she was left very prostrate and exhausted; she never lost consciousness of what was going on around her, and would take part in the conversation in a feeble kind of a manner. Relaxation of the muscles took place suddenly when the ammonia was inhaled, but it was very gradual when the warm applications were employed.

A CASE OF HYDATID OF THE BRAIN.

Read before the Medical Section of the Royal Society of New South Wales.

By William Chisholm, M.D. London, M.R.C.S. Eng., Hon. Surgeon Hospital for Sick Children; Hon. Assistant Surgeon Prince Alfred Hospital, Sydney.

There being rather a dearth of subjects for this evening's meeting, I have been asked to give some notes on a recent case of hydatid of the brain on which I operated unsuccessfully about five weeks ago. This is the second case of the kind I have had, and while the cause of death was probably identical in the two cases there is one point in particular on which I would like to say a few words, especially as the operative treatment of intracranial hydatids was one of the subjects at the recent Intercolonial Medical Congress.

This child, Colin Stuart Gardiner, aged 12, was sent into the Children's Hospital on Friday, 16th September, by Dr. Huxtable, to whom he had been recommended by Dr. Machattie, of Bathurst. I may say that Dr. Huxtable diagnosed the case as almost certainly one of hydatid disease.

The notes, which are vague and indefinite, were the best Dr. Leahy, the House Surgeon, could obtain from the friends. It seems that the child had been affected for six years. His illness began with shooting pains in the head, followed by vomiting, which occurred quite irrespective of food. When the attack passed off he would sleep for a long time after it—on one occasion he is stated to have slept nearly three days. The attacks diminished in frequency until they occurred only occasionally. A fortnight before admission the pains increased suddenly, both in intensity and frequency. They last 15 minutes to one hour. A year ago the patient's eyesight began to fail. On admission he was practically blind with atrophy of both discs. At times there seemed to be an external strabismus of the right eye. He has had attacks of loss of power on the right side, and shooting pains in the legs and arms. There has been no loss of sensation. He has been in the habit of drinking water from a creek, and there were always a lot of dogs about the place where he lived. There never was any discharge from the ears, nor was there any history of an injury. The speech has got thick during the last fortnight. He was able to answer questions, but was in a very low state, with feeble pulse and cold extremities. The greatest pain was on the left side about the junction of the frontal and parietal bones. There was very marked bulging of the whole of the left side of the skull. The seat of pain is not considered to be of much localizing value in intracranial lesions, but the most painful spot, in the absence of more definite indications, was chosen as the spot for the application of the trephine. A ¾in. trephine was applied about an inch to the left of the middle line, and the same distance in front of the coronal suture. When the disc of bone was removed the dura mater bulged into the opening. At first there was no pulsation, nor was this apparent until a couple of drachms of fluid had been removed. It then became most marked. At first a fine hypodermic needle was inserted, and on clear fluid being drawn off, a Southey's tube with a fine piece of rubber tubing attached was substituted for it, the object being to draw off the fluid slowly. This was accomplished by allowing the child's head to hang over the end of the table. The fluid escaped in drops until about ʒiii. had escaped, when it ceased to flow. The tube was withdrawn and a puncture made into the cyst with a very fine tenotome. Through this a fine rubber tube was passed, and thus the remaining fluid was allowed to drain away. Altogether 19½oz. were collected, and the time occupied in emptying the cyst was about half-an-hour. Now was noticed the marked difference between this and my former case, in which the cyst readily collapsed, and was found lying loose in the cavity, and was readily extracted. In this last case it did not collapse, and all our efforts to detach it failed. When seized at the margin of the opening by forceps only small pieces broke away. At the suggestion of Dr. Clubbe, weak boracic acid lotion was gently syringed into the cavity, but without any effect. The cavity measured downwards and backwards 4½in., vertically downwards 4in., towards the eyebrow nearly 3in. A ray of sunlight could be directed into the cavity, and we could all see the inner lining of it. It had a coarsely granular appearance. The opening in the dura mater was closed as nearly as possible with catgut, and the curved incision in the scalp by silkworm gut and horsehair. No drainage tube was inserted, and the head was firmly bandaged.

Careful notes were taken by Sister Gardiner after the operation, but I shall only give a summary of them :—

After the operation the temperature was 97, and the pulse very feeble. This was about 10.30 a.m. At 1 p.m., temperature 98·4 ; pulse 130. At 2 p.m., temperature 104·2 ; pulse 148 ; respiration 36 ; is quite conscious, and says "his head feels funny and hurts him a little." At 3.30 p.m., temperature 105 ; pulse could not be counted ; respiration 30. At 8 p.m. I saw him. The temperature was 103·6 ; pulse 180. He gradually sank. At midnight, temperature 105·4 ; respiration 44 and pulse uncountable. At 7 a.m. temperature 106·2, and he was almost pulseless ; had occasional rigidity in the arms, lasting a few minutes. At 8 a.m. he was pulseless, and died quietly at 8·15, 22 hours after operation. After death, temperature 107·4.

Hooklets were found in the fluid removed. Unfortunately no *post-mortem* examination could be obtained.

In both these cases hyperpyrexia occurred. In this they resemble some of Horsley's cases of craniectomy for microcephaly, in which death was attributed to hyperpyrexia, the hyperpyretic state beginning almost directly from the time of the operation. In all cases there was sudden relief of intracranial pressure. We can exclude septic infection, and Horsley considers "that the thermotaxic centres are incapable of resisting the unfavourable influences which the nature of the operation induce." However this may be, one can only regard hyperpyrexia as *one* of the factors which tend towards death, and which arise from the profound interference with the highest nerve centres.

I understood Dr. Verco to say that the detachment of the cyst is usually an easy matter, and in this statement I think we all agree ; but this last case shows that it is not always so, and aspiration would have done all that the radical operation did.

The cyst wall being elastic may not its detachment or non-detachment from its fibrous capsule depend upon the sudden or gradual evacuation of its contents ? We can all see the way in which the cyst collapses in cases where free incision is carried out and the fluid contents escape rather suddenly. We cannot speak so confidently of what happens in cases of aspiration where, as a rule, the fluid is withdrawn more slowly, though in these cases when the fluid ceases to run this is usually attributed to blocking of the needle by the cyst wall, which is said to have collapsed ; doubtless this often does happen, and results in the death of the parasite. In cases where aspiration fails to cure I would suggest that there is no collapse of the cyst, no separation of it from its vascular and fibrous capsule, and no death of the parasite.

THE RADICAL CURE OF INGUINAL HERNIA.

By WILLIAM GARDNER, M.D., C.M. GLAS.,
HONORARY SURGEON TO THE CHILDREN'S HOSPITAL, MELBOURNE ; LATE SENIOR SURGEON TO THE ADELAIDE HOSPITAL ; AND LECTURER ON SURGERY IN THE UNIVERSITY OF ADELAIDE.

◆

BY the term "radical cure," as applied to inguinal hernia, I understand the application of some operative procedure to the condition which shall enable the patient to attend to the ordinary duties of life without wearing a truss or support of any kind and without any return of the hernia. Surgeons will disagree as to the limitation of time during which these fundamental conditions must be maintained to warrant an application to the particular case of the expression "radically cured." It is not so much with the results as with the attempts which have been made to secure this desirable end that I wish to deal in this short paper. That this much desired end is difficult of attainment, perhaps even impossible, as Billroth says, is attested by the vast number of operations and modifications which have been proposed and carried out more or less successfully. So fertile in invention have surgeons been that a history of the evolution of the modern operations would involve the writing of a goodly volume ; but the various steps that have led up to the best of our modern operations, viz., Bassini's, may be shortly summarized, and to Professor Gritti, of Milan, I am indebted for introducing the operation to my notice.

The principal methods then are :

1. The treatment by injection.
2. The treatment by invagination of skin and use of wire stitches, as in Wützer's and Woods' operations, and the subcutaneous method of wiring the pillars, carried out by Fitzgerald.
3. The treatment by the corkscrew. (Spanton).
4. The "golden puncture" of Berard, being the first attempt to ligature the neck of the sac. (Treves).
5. The open operations for freeing the neck of the sac and then stitching it to the abdominal walls above the internal ring, or simply leaving the ligatured sac in the canal.
6. The addition to the last of various means of securing the narrowing of the inguinal canal or its complete obliteration. Under this heading may be included Banks', Barker's, Ball's and Macewen's operations.

7. The modification of Bassini, whereby he removes the cord from its usual resting-place, stitches the internal oblique and conjoined tendon to Poupart's ligament; then lays the cord on this prepared bed, and sews the aponeurosis of the external oblique carefully over it, and as Watson Cheyne says, "it is thus evident that for a hernia to find its way into the scrotum it must push its way through along the cord and then burrow along dense cicatricial tissue for two or three inches till it reaches the external ring."

On the 14th December, 1892, I employed the method in the case of a gentleman from South Australia, upon whom I had previously operated for strangulated hernia by removing a large portion of omentum and twisting the sac by Ball's method. It was the first time I had tried the method of twisting the sac, and unfortunately I overtwisted it, and the whole of the twisted part came away. The hernia returned, and after trying every possible truss, both here and in England, my patient returned to me for another attempt at a radical operation. I followed Bassini's plan, and removed another large mass of omentum. The wound has healed without suppuration, the patient being kept in bed for three weeks. The final result cannot of course be known for a long time, but I feel confident that a further consideration and extended experience of Bassini's operation will lead to its general adoption.

Difficulties arise from the method of speaking of operations by the names of those men who invent them. But what shall we do to describe an operation which makes use of Bassini's great principle and deals with the sac in one of the four principal ways. I am afraid we shall have to speak of the Bassini-Banks', Bassini-Barker's, Bassini-Macewen's, and Bassini-Ball's method as the only way of expressing our adhesion to the great principle of Bassini, whilst at the same time giving to one or the other of the abovenamed surgeons the credit of having first suggested a special method of dealing with the sac, and in our selection we shall be guided by the results of our own experience.

Watson Cheyne recommends dealing with the sac first and then dividing the aponeurosis of the external oblique; but after my first operation I saw the advantage of making the division of the aponeurosis the first step in the operation, for in this way increased facilities are given for freeing the sac and separating the cord.

Later on I hope, by the kindness of Dr. Fiaschi, of Sydney, to be enabled to publish a translation of Bassini's method from the original work.

THE HYGIENIC CONDITIONS AND AMBULANCE ARRANGEMENTS AT THE LATE CADET ENCAMPMENT, MIDDLE HEAD, NEAR SYDNEY.

BY WALTER E. ROTH, B.A. OXON., L.R.C.P. LOND., M.R.C.S. ENG., ACTING SURGEON CAPTAIN N.S.W. PUBLIC SCHOOL CADET FORCE.

As it may be a matter of interest to your readers as well as to the teachers and relatives of the lads for whose health I was mainly responsible, I venture to encroach upon your valuable space and thus give publicity to the precautionary measures undertaken at the camp. Such publicity will in great measure allay the fears and anxieties of many parents with regard to the safety of their children in any future similar encampment.

The Hospital tent was situated at a higher level and about a couple of hundred yards from the main body of the camp, on the side furthest removed from the latrines. The tent, of rectangular shape and provided with two large vents, had the doors opening on its longer sides so as to admit of a free passage of air; only at night was the windward side door closed. Outside was hung a placard with notification to the effect that out-patients would be admitted daily at 7 a.m. and 5 p.m., but urgent cases would be received at any hour. Within were placed six stretcher beds kindly lent for the occasion by Brigade-Surgeon Lieut.-Colonel Williams, P.M.O., three on either side, the feet pointing to the centre. On a table in the centre of the tent were to be found various cough, diarrhœa, and other homely medicaments upon which a general run by the lads in the encampment was only to be expected, so as to allow of their being dispensed without any bustle and confusion. With these mixtures was also an assortment of various appliances for special accidents, with a view to the prevention of the loss of any valuable time in their alleviation. Among such special injuries for which a good look-out was kept may be mentioned cases of hæmorrhage, snakebite, and eye accidents. In close proximity to the centre table were placed a filter, a fracture box with all necessary splints, and two field panniers as used by the Army Medical Department; one of the panniers contained special drugs for the use of patients to be admitted into hospital. A few stretchers were placed in a convenient position, ready for use, while on one of the tent poles was hung the ambulance field haversack. The objects of the above arrangements of appliances and remedies were practically carried out as follows: At any of the parades, &c., an Ambulance Cadet would be present with the field haversack, from the contents of which he would treat with first-aid measures any accident that may have taken place, at the same time sending a messenger to the hospital tent for a stretcher. The latter's business would also be to inform the surgeon of the nature of the accident, and thus by the time the patient was actually admitted everything from the bedding downwards was ready waiting. On a few occasions, it is true, the Ambulance Cadets may have been on some part of the camp far removed from the scene of damage, but a bugle call for "Ambulance" invariably brought the haversack and stretcher to wherever they were required. Though not often, it sometimes happened that a false alarm was raised, owing to mistaken diagnosis, but it will prove a source of congratulation to learn that the Ambulance invariably put in a prompt appearance to one and every call. No doubt, and especially on dark nights, a few minutes' delay might have occurred in fetching the stretcher from hospital; and I would suggest that in any future encampment at Middle Head a stretcher with lantern-light burning be always kept on moonless evenings in some convenient place in the main body of the camp.

In maintaining the hospital organization great assistance was derived from the never-ceasing exertions and disinterestedness of Captain Dart, as well as from the Hospital Orderly for the day. This latter was chosen daily from the more intelligent of the Ambulance Cadets, and upon him devolved the duty of cleaning up and tidying the tent, sprinkling with disinfectants, looking after, feeding, and washing the patients, and dispensing the medicines under my supervision.

Of out-patients to the hospital, upwards of 200 were treated during the ten days' encampment; it is noticeable that the daily number of cases of trivial sickness coming up for treatment was each time materially increased within twenty-four hours of a new batch of Cadets arriving in camp, the probable explanation being the sudden transference to new climatic conditions. That such conditions did have a marked effect in another direction is shewn by the fact that coughs and colds were practically absent for the first three days, but, with the advent of rain, constituted a large majority of cases during the middle and latter end of the encampment. Next in order of frequency were digestive troubles, *e.g.*, over-eating, "stomach-ache," biliousness, and constipation. It is somewhat remarkable that only two cases of diarrhœa were reported, and those at the onset of the wet weather. This comparative immunity is explicable perhaps by the fact that wholesome and simple food was provided; nothing unwholesome was procurable at the refreshment tent, and all "Hokey-Pokey" and other vendors of obnoxious wares were summarily expelled from the field. As might have been expected, not a few cases of chapped and sore lips occurred among the buglers. During the prevalence of the hot weather some cases of "faints" and headaches reported themselves. On cross-examination some made admission of having been ailing previous to admission into camp. An interesting case of "shingles" on the chin was observed. Among injuries from insects, several lads were treated for mosquito and ant bites, while two lads were troubled with "ticks." In connection with this last I might suggest that in future the lads be warned from entering ti-tree scrub, where these insects abound. With regard to really preventible accidents, many lads sought relief for cuts on the feet from broken glass, &c., while three or four nasty wounds on the head and face were produced by the boys thoughtlessly larking in the tents after "lights out" by throwing their mess utensils and pannikins about. To remove the causes of such accidents I would propose that to the list of Camp Rules posted in each tent the following be added: (*a*) No Cadet is allowed to leave the tent without having his boots on. (*b*) No glassware whatever is to be thrown about the Camp. (*c*) Before "lights out" the Tent Orderly will see that all mess utensils are placed in a receptacle outside the tent.

Six in-patients were admitted for treatment, one or two presenting solid matter for reflection.

No. 1—Rupture.—Attention was drawn to this lad at bathing parade, owing to the loss of the truss and his inability to find it. When found the instrument in question was not only broken, but unsuitable. He was allowed to roam idly in and about the hospital, where he took up his quarters so as to be under immediate supervision. I was subsequently informed on very reliable authority of another case of rupture having been present in camp. It never came under my personal notice.

No. 2—Fever (? Influenza).—The boy owned to having general malaise for some days past. The following morning he was wrapped up in blankets, and in charge of one of the Ambulance Cadets placed in a cab and driven all the way to his home at Darlington.

No. 3—Fainting Fits.—Patient had suffered from them before, and had not been long out of the doctor's hands. He went home next day.

No. 4—Scald of both Hands and Wrists.—Injury occurred while washing up the mess utensils. Ultimately left hospital with one arm in a sling, the other quite cured.

No. 5—Incised Wound on Sole of Foot.—This was a rather bad cut, requiring three stitches, and occurred during bathing parade; took his meals and slept in hospital, where he stayed three days, being carried out of a morning and afternoon into the sunshine; eventually carried down on a stretcher to the wharf, put into the guard boat, and on arrival at Circular Quay sent by cab, accompanied by Ambulance Cadet, to his home at Bondi.

No. 6—Incipient Mumps.—Occurred the night before striking camp.

The first three cases of the above are quite sufficient cause for my protesting most strongly that at any future encampment no lads suffering with any such physical ailments, or who have only just come out of the doctor's hands, should be allowed to attend. In this connection it may not be out of place to mention that I saw and spoke with one lad who most certainly was mentally deficient, while another, troubled with an eye-affection, naively informed me that the lotion the chemist had prescribed for him he had unfortunately left at home, and would I kindly replace it.

Ambulance.—The three bell tents of the Ambulance Cadets were for obvious reasons in close proximity to the hospital. In addition to what the more intelligent of the lads were able to glean during their duties as Hospital Orderlies, object lessons, as occasion arose, were made from the cases in hospital, and their symptoms, methods of treatment, dangers and other interesting particulars, explained. To all the lads instruction was regularly given in general first-aid work, such as that relating to wounds, fractures, snakebite, restoration of the apparently-drowned, &c. Under supervision some of the more able lads were occasionally permitted to dress any wounds, bruises, &c., coming up for treatment.

Ventilation of tents at night in the body of the camp was invariably found satisfactory in the bell tents, even with the doors closed; under the same conditions in the E.P. tents the air appeared vitiated, and the doors on the lee side were accordingly ordered to be left open. Inspections were made between the hours of 10 p.m. and 1 a.m.

The food was occasionally examined both prior and subsequent to its departure from the cookhouse, and in no small degree must the general satisfactory health of the camp be ascribed to the simple yet excellent fare provided by the caterers. Taking a day's *menu* at random it reads as follows: Breakfast (8 a.m.), stew, bread and butter, tea; Dinner (12.45 p.m.), meat, pudding, tea; Supper (5.30 p.m.), cakes, bread and butter, tea. Exception was publicly taken in one of the morning papers to the apparently long fast between supper and breakfast being intensified by the anteprandial parade and company drill. It must be remembered, however, that the parade was a non-compulsory dip in the harbour, and the company drill little more than a roll-call, and practically of short duration. The food refuse of the camp was all collected together in a pit at the rear of the camp, disinfected and buried.

Physical exercise and recreation, entailed on the one hand by the drilling and on the other by the bathing, produced marked changes in the general bearing, carriage and behaviour of the cadets, even in so short a time as the first day after admission into camp. As each batch arrived at Middle Head, the occupants of the various tents were invariably inclined to prove a trifle troublesome and talkative the first night; everything quieted down on the following. The open-air concerts after supper also assisted admirably in wearing off all superfluous energy. During bathing parade in Hunter's Beach every precaution was taken for the prevention of accidents, and the teachers of the various schools stationed in the deeper portions of the water ever kept a vigilant watch for youngsters getting beyond their depth. The fencing off by netting of the bathing place proved to be a precaution far from superfluous, for on one occasion when the net had been removed one of the staff, fishing from the rocks, hooked a pointed-nose shark over three feet in length. Near this same spot a large tiger shark, certainly over five feet in length, was observed, but all attempts at capture proved futile. No better lesson could possibly be placed before the lads.

The latrines were situated on a level lower than that of the camp and on the side furthest removed from the hospital. They were inspected daily, and the condition in which they were maintained, both by dry earth and disinfectants, was satisfactory.

College-street, Sydney,
December 15, 1892.

THE Australasian Committee of the next International Medical Congress, to be held in Rome next September, consists of the following gentlemen:—For NEW SOUTH WALES—Dr. Sydney Jones, Professor Anderson Stuart, the Hon. Dr. Creed, Dr. Fiaschi, and Dr. Rennie (Secretary); for QUEENSLAND—Dr. J. Bancroft, the Hon. Dr. Taylor, Dr. W. S. O. Byrne, Dr. Thomson, and Dr. Lockhart Gibson (Secretary); for SOUTH AUSTRALIA—Dr. Way, Dr. Verco, Dr. Stirling, Dr. Poulton, and Dr. T. K. Hamilton (Secretary); for VICTORIA—Mr. T. N. Fitzgerald, Dr. Syme, Dr. Springthorpe, Dr. Jamieson, and Professor Allen (Secretary); for TASMANIA—Dr. Bright; for WESTERN AUSTRALIA—Dr. Waylen. Dr. Colquhoun is constituting the Sectional Committee for New Zealand. Dr. Sydney Jones has been invited to accept the presidency of the Australasian Committee.

MR. BRUCK can supply *The Lancet* from January 1, 1893, English date, at 42s. p.a. in Sydney, and 45s. postage paid, to all parts of Australia.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF QUEENSLAND.

The 73rd general meeting was held in the Courier Building, Brisbane, on December 13, 1892, at 8.30 p.m. Present: Drs. Gibson (in the chair), Byrne, Little, Booth, Hardie, Turner, P. Bancroft, Taylor, Griffin and Love (Hon. Secretary).

Dr. P. Bancroft showed two smooth urate of lime calculi and a large uric acid calculus, which he had removed from two cases by suprapubic cystotomy. Both cases had healed completely by first intention.

Dr. Love showed a tænia medio-cannellata 19 feet 6 inches long; also ascarides and fibrinous casts of ureters of a case of chyluria where the bladder had been injected with a solution of tartrate of iron. These casts very much resembled the ascarides in appearance.

Dr. Love showed three tubes of urine from a case of puerperal eclampsia, showing the rapid decrease of the albumen after delivery.

A microscopic demonstration of the ova of anchylostoma, as seen in a spot of stool teased in water, was shown; also the female parasite, the tail of the male parasite, and the peculiar hooklets on the segments of the parasites (under high power).

Dr. Hardie proposed, and **Dr. Gibson** seconded, for membership Alex. Nicoll, M.D. Aberd., Tambo.

Dr. Gibson then read for Dr. T. L. Bancroft a paper which the latter had prepared at the request of the Society on snakebite, with special reference to strychnia as a possible antidote.

ON SNAKEBITE.

By Thos. L. Bancroft, M.B. Edin.

It is with diffidence that I have yielded to the wish of Dr. Lockhart Gibson to write this paper, for I cannot claim to have had any experience in the treatment of snake-bitten persons; indeed, I have only seen two such cases, and these both recovered without medicine. All I can offer you is the result of a research into the physiological action of colubrine venom, carried on at occasional times since 1884.

The venom of the Black-snake, when dried, retains its poisonous property, although I believe it loses in strength; it is extremely soluble in water. Absolute alcohol has the property of forming a precipitate when added in excess to a watery solution of venom; this precipitate is soluble in water and is poisonous, and produces an œdema at the site of injection under the skin of dogs exactly like the original venom does. I am inclined to think, however, that there may be a poisonous substance which is not precipitated by alcohol. If there be not, then the precipitation by alcohol causes a great loss in the virulence of the venom.

The poison glands of snakes preserved in ordinary spirit of wine contain no poisonous material; I cannot say that a similar result would follow if absolute alcohol were used.

Venom, being difficult to obtain, has prevented me making more experiments into its chemistry; research in this direction could be better carried on in India; indeed it would be easier and cheaper to import from India a few Cobras than to attempt to obtain venom, sufficient for such a purpose, from our native snakes. From a large Black-snake only one or two minims of venom can be obtained after killing the snake and excising its glands, whilst from a Cobra twenty minims can be obtained by causing it to bite a spoon over which a piece of kid has been tightly stretched, and a similar amount may be obtained every day or so from the same reptile.

The venom of the Black-snake (*Pseudechis*) paralyses the nerve centres in the spinal cord primarily, and this is the cause of death; it paralyses without producing convulsions. The muscular terminations of motor nerves are not paralysed early as by Curara, but do eventually become paralysed, as also do the muscles, and indeed every part of the organism, so that snake venom is a protoplasmic poison. No new corpuscles appear in the blood, as asserted by Dr. Halford.

Sir Joseph Fayrer says in his work: "The Thanatophidia of India:" "The blood of an animal dead from snake poisoning is itself poisonous; if injected into another animal it destroys life. This shows the intensity of the poison; a drop or two diluted with the blood of a fowl or other animal renders the whole poisonous." If this be true as applying to certain Indian snakes it appears to me a remarkable thing how any snake-bitten animal could ever recover. It does not hold true with the Black-snake, for the blood of animals dead of its venom is inert.

With regard to antidotes their name is legion. Curious enough, nux vomica has been used from time immemorial by the Hindoos as a remedy in snakebite; Dr. Augustus Müeller has merely resuscitated it in the shape of hypodermic injections of strychnine.

Strychnine undoubtedly stimulates certain tissues, which snake venom paralyses, and in a sense is physiologically antagonistic to venom. It, however, does not follow, as Dr. Müeller and many others appear to think, that two substances having opposed actions produce no effect or counteract each other when given together to an animal. Experiment seems to show that when a stimulant and a depressant act together the depressant gains power and depresses more than if it were acting alone; this result might be explained by assuming that the stimulant causes a waste of vital energy. I regret quite as much as anyone that strychnine has not proved useful in snakebite. Notwithstanding that experimentally it has been shown to be a dangerous substance to administer in the depression caused by snake venom, it may still have some useful action, although it is difficult to understand how, in cases where the depression is due to fear. Those cases that appeared to have benefited by strychnine injections were probably of this nature.

There can be little doubt but that the reliance upon antidotes prevents bitten persons from excising the bite and sucking the wound, a treatment which generally proves efficacious, always so when done immediately and properly. As snake venom depresses, it was very natural that stimulants, particularly what are called heart stimulants, should have been administered. Alcohol, ammonia, and ether, as you are aware, were regarded as stimulants until Schmiedeberg and his school demonstrated that they were not. Ether still has some supporters; I have satisfied myself, however, by means of kymographic experiments upon rabbits, that it is a depressant and lowers blood tension, even in minute quantity. We are not left without true heart stimulants, however, of which I might mention strophanthus as probably one of the best to make use of.

Removal of the poison from the bite should be urged upon the people as the proper treatment. Either excision of the bite or incision into, and wet cupping should be resorted to. The little instrument known as the "Artificial Leech" would be a useful one to place in the hands of the public.

Dogs having had the venom of the Black-snake (*Pseudechis*) and the Brown or Whip snake (*Diemenia*) injected under their skin, whether by the reptiles themselves or by the hypodermic syringe, soon show a pronounced œdema at the site of the injection, an œdema so striking as to amount to an important physical sign. I believe such an œdema would be found in the human subject if venom had been inserted, yet few medical men have mentioned such a condition.

Dogs dying of venom appear never to become unconscious, for they wag their tails and prick their ears when kindly spoken to, up to the moment of their death, by which time their extremities are cold and paralysed.

It is well known that dogs, which have recovered from snakebite, become protected or immune. I have myself had two dogs which were so protected, and although repeatedly bitten about the head by Black-snakes they were apparently uninjured, except indirectly from the swelling around the bites.

Sir Joseph Fayrer has pointed out a fact well known to the snakemen of India, viz., that venomous snakes readily kill certain harmless snakes, but are powerless to kill themselves or other venomous snakes. Dr. Lauder Brunton, in the *British Medical Journal* of January 3, 1891, in an interesting paper on "Snake Venom and its Antidotes," suggests that possibly the poison glands themselves act as excretory organs for the venom. Removal of the poison glands would thus rob the snake of its resistant power to venom. Dr. Lauder Brunton, for want of snakes, was unable to make the necessary experiments to test this hypothesis. I have lately had an opportunity to make some experiments in this direction. Black-snakes live quite well after their poison glands have been removed, although they lose a good deal of blood during the operation of excision. They are still insusceptible to enormous doses of venom—doses that would kill certain harmless snakes, such as the green-tree snake (*Dendrophis*) in one or two hours.

This immunity to venom is remarkable, and suggests that they may have in their tissues some substance of an antidotal nature.

I have endeavoured to render guinea-pigs immune by injecting into their peritoneal cavities and under their skin quantities of the blood of poisonous snakes, and afterwards testing their susceptibility to venom. These experiments appear to have shown that snake blood is itself a depressant to guinea-pigs, but in doses of 30 minims does not kill them; it, however, does not in any way protect them against the lethal power of venom.

Animals undoubtedly could be rendered immune in a few days by injection of venom, commencing with a small dose and increasing it gradually until a lethal one could be given with impunity. Judging from the success obtained by the use of the serum of animals immune to tetanus in the treatment of that disease, it is reasonable to hope that the serum of animals immune to snake venom might prove useful as a remedy in snakebite.

In conclusion, I would suggest that the Government be requested to have a complete set of life-size drawings (chromo-lithographs) made of all the Queensland snakes, with a short description of each for educational purposes, a copy of which publication might be given to every School of Arts and Public School in the colony.

Such a publication would be extremely valuable for persons to consult when in doubt as to the nature of any particular snake. Many persons have died after bites of harmless snakes, death having occurred from fear or the remedies used. A publication such as I advocate would probably prevent such deaths. Many otherwise well-informed persons appear to be unable to tell the venomous from the harmless snakes. There are more kinds of poisonous snakes in

Australia than in any other country, although most of them are so small as to be harmless to mankind. There are many as large and ferocious, and with poison glands as large as the Indian Krait and *Echis carinata*, the bites of which latter are extremely dangerous. The largest poisonous snake in Australia is one lately encountered on the Diamantina, the name of which is at present not known. Mr. De Vis thinks probably that it is a new snake. In size it exceeds the Cobra, but its poison glands are comparatively much smaller. The blacks say that its bite is fatal.

DR. BYRNE said that during a residence of 18 months in Mackay he had seen numerous bites of snakes, both poisonous and non-poisonous, four of which had been fatal. Death had been in all four cases very rapid, and the remedies applied were quite futile. Swelling of the part after the bite was never noticed. He could not say whether they might have been saved by strychnia.

DR. LITTLE approved of the principle of Dr. Bancroft's paper, but thought that Dr. Müller's remarks as to strychnia not being sufficiently pushed had much weight in them.

DR. P. BANCROFT commented upon the loose and inaccurate way in which cases of snakebite were reported by medical men. He considered that a *prima facie* case had been made out in favour of strychnia. It increased the irritability of the automatic centres of the nervous system, and hence aroused the patient from the lethargy or coma into which the snake poison had thrown him.

DR. TURNER said that Dr. Müller's strychnia treatment was not a question of medicinal doses but of poisonous ones. Because a drug can be given in large doses without producing toxic symptoms it does not follow that it is doing good. For instance, he had seen very large doses of strychnia well tolerated in a case of diphtheritic toxæmia, but without retarding the fatal issue. Before reading Dr. Huxtable's statistics he thought a strong case had been made out for strychnia, and considered that that paper had done much to knock the bottom out of Dr. Müller's position. Cases of the worst character have been known to recover with treatment other than that by strychnia, *e.g.*, with ammonia. Many of the cases reported as successfully treated by strychnia were doubtless suffering more from alcoholic than from snake poisoning. He thought it reprehensible that anyone and everyone should be allowed to use and push so dangerous a remedy as strychnia. Dr. Huxtable's tables showed that the mortality of cases treated by strychnia was three times as high as of those which were treated by other methods. With regard to Dr. Bancroft's experiments he thought that the strychnia should be pushed till physiological effects were produced.

DR. HARDIE had also listened to Dr. Huxtable's paper, but did not draw the same conclusions from it as Dr. Turner had done. Previous to the introduction of the strychnia treatment the mortality of all cases reported was 4 per cent., since the strychnia treatment the mortality was 14 per cent. This discrepancy was doubtless due to the fact that in the former only successful cases had been reported.

DR. BOOTH thought that to complete Dr. Hardie's argument he should add that many cases reported under the strychnia treatment had been moribund when the treatment was applied.

DR. LOVE had used strychnia in cases of acute alcoholism with good effect. He mentioned a case of a medical practitioner, who had been drinking heavily for about a fortnight, and was on the verge of *delirium tremens*. An important document had to be signed, and thanks to the hypodermic injection of three minims of liquor strychniæ, the patient was able to sign his name clearly and firmly, though before the use of the strychnia this had been proved to be an utter impossibility. Doubtless the good effects of strychnia in some cases of snake poisoning, which had been first treated with alcohol, were analogous to this. In the earlier stages of snake poisoning, when the cerebro-spinal centres were becoming numbed and paralysed by the poison, the employment of strychnia was rational and likely to be of use to tide the patient over till sufficient elimination had taken place; but after the blood had become disorganised neither strychnia nor anything else was likely to be of service.

DR. LOCKHART GIBSON said: "Although I have myself made neither experiments with snake venom nor observed cases of snakebite, I have from reading and from talks with others who have thought on the matter, and from talks with Dr. T. L. Bancroft, gathered some ideas regarding snakebite and its treatment, and I should like to make a few remarks upon some of the work which has been done. Dr. Bancroft's paper is of real interest as the outcome of original research. If I may be allowed to express a criticism upon it, it is that he has, owing to a modesty peculiar to himself, failed to make the most in his paper of his own observations. And I may tell you that many of his statements which are given to us this evening as mere assertions, are based upon careful experiments and upon thought and reading. We should, therefore, cordially recognize his work as that of one who is searching after truth, and who has found some. His position regarding Dr. Müller was at first somewhat unfortunate for himself. But the key to this attitude is given when he records Dr. Müller's assertion that a medical man treating a case of snakebite without using strychnine would be guilty of culpable ignorance or neglect. Such a statement could not fail to have an irritating effect upon one who from enquiry and personal observation on animals was justified in at least concluding that with the facts at Dr. Müller's disposal an assertion of the kind was unscientific, and even insulting to the profession. Hence no doubt Dr. Bancroft's title to his paper, "Strychnine a useless remedy in Snakebite," which could not fail to be in turn insulting to Dr. Müller. And to me this title seems to have been unfortunate, as Dr. Bancroft's experiments, though proving for one species of animal, guinea-pigs, that a non-lethal dose of strychnine does not act as an antidote to the action of snake poison upon them, only proved this for these animals, and did not go the length of proving the effect of the relatively larger doses suggested by Dr. Müller. His experiments, however, though few in number, seem to me to have been the first accurate ones upon the action of strychnine in snake poisoning. Sir Joseph Fayrer's very numerous experiments on many classes of animals are most interesting, and are sufficient to disprove the virtue of many of the reputed antidotes. But upon reading those made by him to ascertain the effect of strychnine they appear very inconclusive. Most of the animals employed died from an overdose of strychnine before the snake venom had time to act. Sir Joseph Fayrer contradicts his own assertion that the blood of animals dead from snakebite is itself poisonous, by an experiment upon a fowl. Into this fowl he injected 40 drops of the blood of a boy who had died from snakebite, and no evil effects followed. Fayrer's very elaborate work furnishes us with many examples of the extremely grave symptoms which may be produced by the bite of a perfectly harmless snake owing to fear, and the, in those cases, very rapid good effect of an assurance that no fear was necessary. And a most interesting fact, brought out by one experiment of Fayrer's, shows that though if the fangs of a venomous snake penetrate and remain an appreciable interval in the punctures, poison is nearly always injected in sufficient quantity, it is possible for such a bite to be given without poison being injected, thus showing another fallacy with which we have to reckon in observing clinically the effect of so-called antidotes on snakebite. Lauder Brunton in a characteristically suggestive paper (*B. M. J.*, January 3rd, 1891) puts forward an interesting hypothesis based partly upon the fact that snake venom has an extraordinary irritant action on mucous membranes, this last being shown by the effect of introducing some into the stomach of a frog, viz., violent vomiting, which is most unusual in that animal. He suggests that the vomiting which forms so prominent a symptom in cases of snakebite may be due to the venom being excreted by the mucous membrane of the stomach in the same way as tartar emetic and apomorphine are, and that as alcohol precipitates the active principle of the venom (supposed by Wolfenden to be an albumose, and proved, I believe, by Dr. C. J. Martin to be so) the stomach should be washed out with some form of alcohol, as whisky or brandy. He explains thus the reported good effects of alcohol in snake poisoning, *i.e.*, that it coagulates the venom and prevents reabsorption, or at any rate rapid reabsorption, as he denies that alcohol has any action on the nerve centres which can prevent death from the venom, and states that men bitten while drunk have died from the bite. As possible treatment, therefore, he suggests the washing out of the stomach with alcohol and the performance of artificial respiration to give the poison a chance of being eliminated, and thinks that we might combine with these the subcutaneous use of strychnine as a stimulant to the cardiac and respiratory centres. But he at the same time points out that such excessive use of alcohol might not be without danger on account of its strongly irritant action on the stomach, leading to depression of the circulation and fatal shock. Remembering that besides sustaining life we must eliminate the poison as quickly as possible, we should not, I think, lose sight of pilocarpine subcutaneously. It stimulates both skin and kidneys, and has been used with apparently very satisfactory results by some in tetanus poisoning, and appeared to me to assist greatly in the successful issue of the treatment of a case of tetanus under my own care; and Dr. T. L. Bancroft's suggestion regarding strophanthus seems to me most valuable. In fact, if we are to use drugs, strophanthus and pilocarpine are as likely to help us as any, though strychnine *used carefully* should not be discarded until we have further proof against it. Dr. Bancroft tells me that dogs would be the most likely animals to experiment upon, but that he could not undertake to employ them as it requires nearly the whole of the venom of a black snake to kill a dog, and he cannot procure snakes in sufficient number. Sewall, as quoted by Lauder Brunton, showed in 1887 ("Journal of Physiology") "that the system may gradually become resistant to the action of snake venom, just as it may to the action of infective disease such as anthrax; and by injecting small quantities of the venom he rendered animals immune from the effects of larger doses which rapidly killed other animals not protected by previous inoculation." Dr. T. L. Bancroft has confirmed this in an interesting manner. According to Lauder Brunton, "the analogies between snake venom and the products (chiefly albumosis) of disease germs are becoming every day more apparent, and it seems highly probable that while studies of serpent venom may throw light on the products of disease, a study of the latter may lead to the discovery of an efficient antidote to the former." Upon reading this article of Lauder Brunton's, and coupling it with the effect of the serum of immune animals, or of animals rendered immune, in tetanus cases referred to by me in a last year's paper, the idea suggested itself to my mind—may we not find an antidote to snake venom in the blood serum of the poisonous snakes themselves, which, as shown by Fayrer, are immune to their own poison? Upon mentioning this to Dr. T. L. Bancroft I found that the same idea had occurred to him, as he has told you this evening. He has made a few experiments in this direction, which, though so far negative, are, I am very much inclined to think, in the right direction, and we may hope that he is now on the track of a physiological antidote to snake poison. Dr. Huxtable's very exhaustive analysis of statistics before and since the introduction of strychnine as a remedy in snake poisoning, read at the late Congress, will give us and, I think, Dr. Müller, much food for reflection. Dr. Huxtable, without considering that the statistics proved strychnine to be useless, brought forward quite sufficient data to show that Dr. Müller's present attitude is untenable, and that the claims of strychnine have still to be proved. A distinct wish was expressed at the Congress that Dr. C. J. Martin should inquire into the virtues of strychnine as an antidote to snake venom. I believe he has consented to do so, and am sure that he will set the matter at rest. And I am also sure that he would learn with pleasure that Dr. T. L. Bancroft was continuing his researches in the direction of strengthening or changing his own attitude with regard to the use of the drug. I should like to dwell upon the very practical suggestion of Dr. Bancroft to look upon ligature as a secondary matter, and upon excision or incision of the bite, and sucking or cupping as the most important means of immediate treatment. Two experiments of Fayrer's—one upon a fowl, the other upon a dog—showed very clearly that though the tightest possible ligature applied above the bite had previous to it retarded the action of the snake venom, the poison was so diffusable that each animal was dead in 21 minutes from the time it was bitten. Without the ligatures they would have survived only a few minutes. In conclusion I should like to record my appreciation of Dr. Müller's work in this direction. Whatever the outcome, it has done much in stimulating research; and when we remember how inclined we are ourselves to ride our pet hobby, we will forgive him for being perhaps a little too dogmatic while astride of his.

Dr. Hardie presented to the Society a set of charts mounted on rollers and varnished, showing in graphic form the relation between mortality of various diseases and the season and climate. A vote of thanks was accorded to Dr. Hardie for his valuable present.

The President referred with sympathy to the late Dr. Forbes, of Charters Towers, a member of the Society; also to the bereavement which Dr. H. A. Francis had lately sustained in the death of his wife.

The Hon. Secretary was instructed to write to Dr. Francis, assuring him of the sympathy of members.

ANNUAL MEETING.

THE sixth annual meeting of the Medical Society of Queensland was held on January 10, 1893, in the Courier building, Brisbane. Present: Drs. Gibson (in the chair), Thomson, Hardie, P. Smith, Turner, Taylor, Clowes, P. Bancroft, Culpin, Hoggan and Love (Hon. Secretary).

Correspondence was read from Drs. C. Kebbell and Hammond, intimating their resignations, and from Dr. Morgan, of Gympie, thanking the Society for his election to membership.

A letter from Mr. L. Bruck was read, intimating the gift of a dozen volumes to the Society's library. Mr. Bruck was unanimously accorded a vote of thanks for his liberal gift.

Dr. P. Smith, of Dunwich, very kindly promised a gift of books to the library, for which a vote of thanks was accorded him.

DR. LOCKHART GIBSON gave an account of the *post-mortem* upon the patient suffering from anchlystomum duodenale exhibited at a previous meeting. The man had contracted influenza, and his vitality had evidently been so lowered by the long-standing anæmia that he failed to rally from the extreme depression which so often follows an attack of influenza. The duodenum and jejunum were found to contain great numbers—many hundreds—of the parasites. They were not present in the large intestine nor in the lower part of the ileum—in fact appeared to be found only where the valvulæ conniventes are situated; and it appeared as if the difficulty in dislodging them is largely due to the protection received from the valvulæ conniventes, between which they seemed in this case always to be found. Their hold on the mucous membrane was found to be firm, a distinct pull being required to detach them. They were pink in colour from ingested blood, and varied distinctly in size. Specimens of the parasite and the jejunum of the patient, showing many parasites still attached to its mucous membrane, were exhibited.

The HON. SECRETARY (Dr. Love) then read the report of the Council for the year 1892, which was as follows:—

SIXTH ANNUAL REPORT OF COUNCIL FOR THE YEAR 1892.

Mr. President and Gentlemen,—To-night we have the pleasure of laying before you an account of our stewardship during the year which has just ended, and though unforseen obstacles have somewhat impeded the expansion of the Society we have good cause for congratulation at the work of the last 12 months.

The meetings have on an average been better attended, and the interest shown has been greater than has been the case for some time past; and though there is yet ample room for improvement in these directions, we welcome the advance as an incentive and an encouragement. To those members who have assisted us by their presence and their contributions the thanks of your Council are heartily offered. Though our numbers have been reduced from various causes, it is some satisfaction to your Council that those gentlemen who have left our ranks have been, without exception, conspicuous by their absence at our general meetings—our loss has hence been rather in the direction of quantity than of quality. At the beginning of 1892 our roll showed 54 members, inclusive of four honorary members. To-night we have 50, and there is also one candidate to be ballotted. Three new members have been elected during the year, viz., Drs. Culpin, Morgan and Garde, and Dr. Turner has returned from Tasmania; while on the other hand Drs. Brockway, E. H. Byrne and Quinnell have left Brisbane, Dr. Forbes has been removed by death, and Drs. Hammond, C. Kebbell, Lyons, C. F. Marks and Tilston have severed their connection with the Society.

Since last Annual Meeting 12 General Meetings and 11 Council Meetings have been held. Papers have been read on the following subjects;—

1.	Retiring President's Valedictory Address ..	Dr. Taylor.
2.	Notes of Case of Cancer of Pancreas	Dr. Connolly.
3.	Notes of a Successful Case of Cæsarean Section	Dr. Byrne.
4.	Notes of a Case of Fracture of Humerus from Muscular Action	Dr. Byrne.
5.	Notes of a Case of Gastrostomy	Dr. Hardie.
6.	Notes of a Case of Hydatid of Lung treated by Excision	Dr. Love.
7.	Notes of Case of Cyst of Choroid	Dr. Gibson.
8.	Notes of a Case of Cleft Palate	Dr. Gibson.
9.	A Case of Extra-Uterine Gestation treated by Laparotomy	Dr. Byrne.
10.	Catarrhal Croup, with special reference to Intubation	Dr. Turner.
11.	Human Filariasis	Dr. Love.
12.	Diphtheria in Brisbane, with special reference to Season and Climate	Dr. Hardie.
13.	A Case of Profound Anæmia in a Man, due to Anchylostoma Duodenale	Dr. Gibson.
14.	Acute Intussusception in an Infant Successfully Treated	Drs. Hoggan and Turner.
15.	Two Cases of Imperforate Anus Treated by Operation	Dr. Byrne.
16.	On Snake Poison, with special reference to Strychnine as a possible Antidote	For Dr. T. L. Bancroft.

In addition to the above papers there have been numerous interesting exhibits shown, among which may be specially mentioned the seven cases of Lead Palsy from the Children's Hospital; Dr. P. Bancroft and Dr. Hoggan's cases of Filarial Elephantiasis; Dr. Gibson's Anchylostoma cases; Dr. Turner's case of Congenital Dislocation of both Hip-joints; Dr. Hill's case of Hebra's Prurigo; Dr. Taylor and Dr. Gibson's cases of Detached Retina; Dr. Byrnes' specimens of Filaria, Sanguinis hominis, major and minor, prepared by Dr. Manson. Microscopical demonstrations of pathological and bacteriological subjects have been freely used to illustrate cases or papers.

Messrs. Elliott Bros. have, as before, furnished us with exhibits of new instruments and pharmaceutical preparations, for which your Council wishes to tender them the thanks of the Society.

The reports of the General Meetings and the papers read have, as before, appeared in the columns of the *Australasian Medical Gazette*.

A determined effort has been made during the year to secure a room for the exclusive use of the Society (which would be open to members during the daytime for perusal of the journals or reference to the library; in short, where the members might enjoy the privileges of a medical club), but unfortunately so far without success. The Colonial Secretary has, however, promised a room in the new Treasury buildings for the use of the Society in common with the Medico-Ethical Association and the Pharmaceutical Society, and we hope that before long we shall have this important problem solved.

In April an invitation was received from the Colonial Secretary asking that the Society should undertake the bacteriological examination of the leper Quigley at Dunwich. After an animated discussion it was resolved to accede to the request on the casting vote of the President, but as so much opposition to the proposal had been evoked, it was undertaken by several of the members in a private capacity.

In October a deputation from the Society waited upon the Postmaster-General with reference to an order which he had made that all medical certificates of health should be obtained from the Government Medical

Officer by the employees of the department. The order was revoked on the deputation consenting to draw up a satisfactory form of certificate.

The Third Intercolonial Medical Congress met in Sydney in September, when the Society was represented by the President (Dr. Lockhart Gibson), Drs. Thomson, Hardie, Taylor, Turner and Jackson; and the Society has every reason to be proud of the contributions of its members to that important event.

During the year there has been one change in the *personnel* of the Council, Dr. Connolly having resigned in July and his place filled by Dr. Hill. The best thanks of the Society are due to Dr. Gibson, our President for the year, not only for his services in the chair but also for his hospitality to the Council. In November, Dr. Gibson entertained the Council and the past Presidents of the Society at dinner at his residence.

Considerable progress has been made with the library during the year. In February last about 60 volumes and 13 atlases were purchased from the widow of the late Dr. Thon, of Rockhampton; the Sydenham Society's publications for the last four years were received, and Sir James Simpson's works (3 vols.), the Transactions of the Adelaide Congress, Beard and Rockwell's treatise on Electricity (presented by Elliott Bros.), have been added from time to time.

In addition we have had to thank Dr. Thomson for his photographs of the Cingalese leper "Panjab," and Dr. Hardie for a very complete set of charts showing in graphic form the mortality in Brisbane from various diseases, with reference to climate and season. This month we have received a third parcel of a dozen books from Mr. Bruck, publisher of *The Australasian Medical Gazette*, for which your Council wishes to offer him their best thanks.

In February a by-law was passed devoting 75 per cent. of the annual surplus to library purposes, so that before the year is out our curator of the library will be able to show a list of nearly 200 volumes for the use of members. There is a motion before the Society to-night asking that one member of the Council should have the library placed under his charge, as it has been found that the dual office of Treasurer and Librarian involves more time than is fair to exact from one officer.

There have been several changes made in the by-laws, which will be submitted to you to-night for ratification.

1. In February, "That 75 per cent. of each annual surplus be devoted to the library fund."

2. In December, "That the subscription of country members (viz., those living outside the eight-mile radius), be 10s. 6d. per annum."

The Treasurer's statement will speak for itself, and will show that the Society is also flourishing financially.

In conclusion, your Council, upon surrendering the reins of office, wish to thank the members for the assistance which has been rendered them, and for the courtesy and forbearance extended to them during their term of office, and to wish the Society a prosperous year. They would remind members that individual effort is necessary, and that the true spirit of "truth for truth's sake" is the only mainspring which can make the work of a Society valuable to the profession, and through it to the public at large.

On the motion of the **President**, the report of Council was ratified.

The Treasurer's report was then read. It showed a credit balance of £59 14s. 7d., in addition to which there is some £20 of outlying subscriptions. The report was ratified.

The **Hon. Secretary** gave notice that at the next meeting he would move "That the offices of Treasurer and Librarian be dissociated, and that one of the members of Council act as Librarian."

The ballot papers for the various offices for 1893 were then opened with the following result:—President, David Hardie, M.D.; Vice-presidents, John Lockhart Gibson, M.D. (retiring President), and P. Bancroft, M.B.; Hon. Secretary, Wilton Love, M.B.; Hon. Treasurer, John Thomson, M.B.; Council, A. J. Turner, M.D., J. A. Wheeler, M.B., and J. S. Clowes, M.R.C.S.; Auditors, Joseph Little, M.B., and James Booth, L.R.C.P. and S.E.

Dr. Gibson then read his presidential address, which was as follows:—

PRESIDENTIAL ADDRESS.

Two great difficulties confront me when trying to put together some remarks for this the closing meeting of our Society's year. Firstly comes the fact that during the past year I have already written what I wished to say upon five subjects, any one of which might, I venture to think, have served me for a valedictory address; and partly on that account and partly owing to the time of year being non-conducive to activity of either mind or body, I do not feel equal to taking up another subject in a manner which would justify the occasion; and secondly, the Third Intercolonial Medical Congress furnished those attending it, and will furnish through its transactions most of our members with such admirable addresses from the presidents of its different sections, that I may be excused from venturing upon the task of trying to tap the resources of the present state of the science and art of medicine any further. I might almost add that as your President, and as taking a very keen and active interest in the meetings of our Society, my voice has been heard not infrequently amongst you, and I for my part will pardon any for harbouring the not improbable wish that for this time at least I may "cut it short." Whether or not such a wish exists it shall be complied with, and instead of going at all thoroughly into any subject I purpose nibbling at a few of which I have thought, and concerning which I should like to disburden myself a little, endeavouring to bear in mind the precept taken from Oliver Wendell Holmes, and laid down by me at our opening meeting—"Speak of those things which have been long in your mind, and listen to what others have to say upon things about which you have thought but recently."

Not a little good work has been contributed to the Society during the past year, and we may safely congratulate ourselves upon it. We have passed through a rather turbulent 12 months, and although the calm of our Society's existence has hardly been ruffled, and although its main stem continues as strong and vigorous as ever, it shows by the absence of a few rootlets that it has passed through a stormy season. Fortunately none of the torn rootlets brought to the stem and branches the nourishment they most desire, and we are therefore in a position to dispense with them, and to commence a new year eager and ready for the work to which they had hitherto failed to contribute, and in which they will therefore not be missed. This comment upon the secessions from our ranks is not deserved by all, but as it would be invidious to single out instances I leave the cap to be worn by those whom it may fit, being confident that others will think it not uncalled for.

Others of our members, however, have injured us far more by non-attendance, and some of these, we have reason to think, are well competent to cater for our Society's needs. Upon these I would urge more regular attendance for their own and for our sakes, only warning them that they must not expect to find us a mutual admiration Society. But we would ask them to believe that if we are prepared to give criticism, we are also prepared and pleased to take it.

When we look at the meetings of the Adelaide Society (Adelaide being little larger than Brisbane), and compare the attendances with our own, we have with shame to confess that as a body of scientific workers, which, as members of the profession, we ought to be. we are, in numbers at least, as much behind Adelaide as a State School in a Brisbane suburb is behind the central State School of the town. I like to indulge in straight speaking, believing with Bacon that "dry light is ever the best." And now that I am leaving this chair, and am therefore speaking more as an individual than as your President, I shall say in public some of what I have thought in private.

Some of the medical men in Brisbane, myself amongst others, have endeavoured to raise the profession here out of its provincial condition, and to put it in circumstances, which in time might elevate it to the level of the profession in Sydney and Adelaide. The present state cf matters, which is upheld by lay and, I grieve to say, by professional ignorance and personal feeling, has received, I believe, a severe shock, and will ere long cease to be. Until then, and until a more enlightened, a more unanimous, a less personal, and a more unselfish feeling pervades us as a body of medical men in this town, we must be prepared to hear our profession insulted in private and in public—indeed in Parliament itself—and will have to solace ourselves with the only balm obtainable. A profession is judged according to the behaviour of its lowest members, and we must be satisfied to know ourselves as something better.

I have felt it to be due to myself to say these things, because the active part I took in what has been called the hospital dispute has, I believe, been partly the cause of some of our resignations. That no justification for such resignations existed will be gathered from the fact that I never once used my position as President of the Society to support the reforms I so earnestly wished. I should indeed have liked the Society to move in the matter, but as some thought it should remain neutral I did not employ pressure; and I can conscientiously make use of a sentence put by Lawrence Oliphant into the mouth of a would-be social reformer: "The seed which I found in my hand, *such as it was*, I have sown. Whether it rots and dies in the ground or springs up and brings forth fruit is a matter in which *I cannot and ought not to have the smallest personal interest.*" Owing to the accident of birth, however, I have, as a native of Queensland, a naturally greater desire than I could otherwise have to see it as a colony take a foremost place in all matters; and as no public matter is dearer to me than the advancement of my profession, I have, since deciding to cast in my lot with the fraternity in Queensland, endeavoured to lend a helping hand towards the elevation of professional matters in this city, and hence in the colony generally; and I believe sincerely that a few lines of Browning, which for deep insight and true earnestness cannot be improved upon, describe truly the position, both present and future, of the would-be reformers of medical matters in Brisbane. The lines are:—

> Whoever may discern true ends here
> Shall grow pure enough to love them;
> Brave enough to strive after them;
> And strong enough to reach them,
> Tho' the roads be rough.

By no means will we further our profession more than by advancing ourselves, and by no means can we advance ourselves more than by being individually and collectively, active Society attenders and workers. Speaking for myself, I cannot calculate the good that I personally have received from our meetings, and during the months of my enforced absence some two years ago I missed more than I can tell you our half professional, half friendly, and pretty informal monthly gatherings. These are, perhaps, sometimes too informal, but so far the number of attendances has not been too large to prevent our sitting round this long table, with our elbows very often upon it, and our lips not infrequently puffing the friendly weed. What our meetings lose in formality they gain, I am convinced, in nourishing a friendly feeling amongst those of us who attend. For myself I have not amongst the profession in Brisbane a single member whom I can call friend who is not or has not been a regular attendant at our meetings, and that largely because I have not had sufficient opportunity of knowing the others. I am convinced that if these attended we would get to know them better, and there would be a mutual learning to give and take between us and them. They would get used to our angles, and we would grow used to theirs, and would, perhaps, like each other all the better for the angles, though dubbing each other "queer fish." The common or garden specimen of humanity is not an interesting animal, and those who have any good in them can generally be put into the category of "queer fish," at least in my experience. I have met a good many queer fish in my time, and liked not a few of them. For a few—a very few—a stronger expression than like I could safely use. But if we take narrow views and simply remember each other's weak points (for those we all have) we will make no way in friendliness. For that we must think hard of each other's good points, and fortunately there are none of us so bad as to be without these. They are occasionally very carefully concealed, though often only for lack of opportunity to shoot, or owing to bad hygienic conditions. It is perhaps almost sacrilege to borrow a quotation from Sir Walter Scott's diary to account for the fact that many members of our profession, capable of doing good work and at the outset anxious to do it, have failed to fulfil the promise of their youth, and have come to believe their early ideals to be myths. In the time of his sore trouble, when he had to write, whether the spirit moved him or not, to keep the wolf not only from his own door but to pay the debts of others, that genius, of whom all Scotchmen—all the world, indeed—are proud, quoted most pathetically:—

> When the harness sore galls
> And the spurs his sides goad,
> The high-mettled racer's
> A hack on the road.

But no doubt some of my own angles are being freely exhibited, and also, no doubt, I am not always careful enough to practise what I preach.

To say a few words upon some of the medical matters which in Australia have been brought pretty prominently before us in the past year, and selecting naturally some of those which have happened to arrest my own attention, viz., the plea of insanity; the importance of recognizing the form of obstruction to the upper respiratory passages due to adenoid vegetations, and the evil effects of these upon the general health and upon hearing; the use of hypnotism in medical practice; the treatment of snakebite, and the occurrence of disease due to anchlystomum duodenale in Queensland.

Regarding the plea of insanity, not being an expert my opinion may be of little value. It is at least that of a medical citizen, and is that, if a man's mental abnormalities lead him to be unable to control impulses to commit serious crimes the sooner he is got rid of the better, for his own sake, for his friends' sakes, for his fellow men's sakes, and for the sake of the fear that he may multiply his kind. For instance, if he commits a murder and has not the excuse of self-defence, or of its being committed under great provocation, and or during an outbreak of passion, the plea of insanity, instead of being in favour of keeping him in life should be an additional reason for his death, death being not only safer for all others concerned, but surely more humane than the only alternative, life-long confinement in a lunatic asylum. But for such criminals they and their friends might be spared the revolting thought of the hangman's rope, and powder and ball might well be substituted.

Regarding adenoid vegetations, I would call your attention to the Congress transactions, which will, I hope, shortly be published. In them you will find three papers, one of them by myself, all dealing with the subject from different aspects, and all pointing to the importance of diagnosis and treatment. As a result of our discussion upon this subject in the Ear, Throat and Nose Section, a motion urging the importance of the matter was submitted to, and approved of, by a general meeting of Congress.

Regarding hypnotism.—It is a subject upon which we must all have thoughts, and I confess that my opinion coincides not a little with the admirable paper of Ernest Hart in the *Nineteenth Century*, and with the expressions of Dr. Sydney Jones in the last *Australasian Medical Gazette*. There can be little doubt that there is a great future before hypnotism through the medium of hypnotic suggestion, but in its very strength for good lies its power for evil. And it is this strength which should make us insist upon its employment for suitable cases only. And with all deference to those using it for anæsthetic purposes, I cannot consider anæsthesia one of its legitimate uses. The production of the hypnotic state seems to me a much more serious matter than the production of anæsthesia by chloroform or ether. And I would rather that myself or that anyone related to me should be chloroformed many times for anæsthetic purposes than be once put for such purposes into a hypnotic state. Anything which weakens the power of the will or lessens the individuality of a patient is a most potent and far-reaching weapon, and should be used most cautiously, as Ernest Hart points out by illustrations, and as can be deduced from any book or paper upon hypnotism. The use of hypnotism should, I believe, be even more carefully restricted than the sale of poisons. I would go so far as to ask that it should never be used for anæsthetic purposes except where chloroform or ether may be contra-indicated, and never for medicinal purposes except in the presence of, and after consultation between, two medical men. If a fraction of what is written by the supporters and practisers of hypnotism be true, it should never be employed except by men of the highest principles, as the field opened out by it for unprincipled practices is simply appalling.

Regarding snakebite, there seems now some likelihood of its treatment being placed upon a scientific basis. The activity shown in that direction during the past year would lead us to hope so. Dr. T. L. Bancroft's paper of last meeting and the discussion which followed will help somewhat, let us hope, towards the solution of the question, and the suggestion that the blood of immune animals, or of animals rendered immune, may supply us with an antidote seems to me most important and after the brilliant results from Behring and Kitasato's experiments in tetanus cases, which really furnish an epoch in medicine, most encouraging.

Regarding the observations upon Queensland cases suffering from anchlystomum duodenale, there is accumulating evidence to show that the parasite is only too common, and the notes read this evening upon the *post-mortem* of the case recently shown by me will give you some idea of the very serious nature of the affection. The parasites are so numerous and apparently so well protected between the valvulæ conniventes of the small intestine that it seems almost hopeless to expect to dislodge them. So numerous are they that they must almost certainly go through their whole life history in the intestine, and as it would be much less difficult to dislodge a few than the hundreds found in my last patient, early diagnosis and treatment seem to me most important. Fortunately the diagnosis at last is easy, the patients, when children, seem to try to either cure themselves, or to scratch the lining of their intestines with dirt and other indigestible and insoluble matters, and hence the title to Dr. Bacot's paper in the last number of the *Australasian Medical Gazette*.

Regarding the many valuable papers read at the Third Intercolonial Medical Congress, and the very pleasant and profitable time those of us who attended it spent in Sydney, I cannot now speak. Such great gatherings make us feel that in spite of all our local and petty differences we, as medical men are a truly united body of workers; and to me at least the Sydney Congress has proved that the Australasian branch of the profession will soon make itself cordially recognized and respected; and as evidence that this is even now becoming the case we have the invitation from the President of the 11th International Congress to form an Australian Committee for furthering the objects of the Congress. Within the next few days you will all receive invitations from the Queensland Committee to become members of this Congress, and to work hand in hand with the Committee in order that the Queensland division of Australasia may be well represented.

And now, gentlemen, I have to wish all members of the Society a happy and prosperous new year. I have to wish farewell to this chair but not to you. I am deeply conscious that as your President I might have done much better, but I only had my best energies and most earnest interest to offer you, and those you have freely had. You knew that these were all I had to give when you placed me here, and to you, therefore, no apology is necessary. But if continued expenditure of my best energies and the continuance of my most earnest interest in our Society can make up for past deficiencies you will have no reason to complain. For your forbearance you have my most cordial thanks, and my hearty thanks go also to our Secretary, without whom we should soon be at sixes and sevens, and who has shown by his many years of service to us not only how invaluable he is, but how truly self-sacrificing he can be in his work for us and for our science. That the Secretary and myself have to thank the other members of Council goes without saying. And I have only to close with the time-honoured toast, which although dry will be heartily echoed: "*Floreat res medica.*"

DR. HARDIE moved a vote of thanks to Dr. Gibson for his services in the chair, and DR. THOMSON moved a similar vote of thanks to the Hon. Secretary for his unwearied efforts in the interests of the Society.

MEDICAL LIBRARY APR 19 1894

IN our next issue will appear an interesting and instructive paper by Mr. Bruck, entitled "The Present State of the Medical Profession in Australia, Tasmania, and New Zealand."

QUEENSLAND MEDICO-ETHICAL ASSOCIATION.

A GENERAL meeting was held December 21. Present: Drs. Hardie, President, in the chair, Taylor, Love, Connolly, Booth, P. Bancroft (Secretary).

Minutes read and confirmed.

DR. HARDIE reported the result of the deputation to the Colonial Secretary concerning the proposed Pathological Institute, and the matter of a room for the Association's meetings.

DR. HARDIE reported having examined the principal newspapers circulated in Brisbane since the passing of the Indecent Advertisements Act, and found that while from some papers advertisements had been withdrawn, many still contained advertisements which, in the opinion of counsel, which he read, distinctly infringed the Act. Dr. Hardie thought that some action should be taken by the Association.

DR. TAYLOR explained that the Medical Board were considering the matter, and thought that it should be so left in the meantime. He hoped that the southern colonies would soon pass a similar Act.

DR. LOVE then read his paper on the "Compulsory Notification of Disease."

Drs. Taylor, Hardie, Booth, and Connolly joined in the discussion.

DR. HARDIE spoke upon the question of the Association taking some action before the forthcoming general parliamentary election to enhance the position of the profession and the public health of the colony, especially with regard to improvements in the Medical Act, the establishment of a permanent vaccine institute, compulsory notification of disease, &c.

DR. TAYLOR warmly supported Dr. Hardie's idea.

DR. LOVE moved that Drs. Hardie, Taylor, the Hon. Secretary, and the mover, be a committee to draw up a report upon the matter at the next general meeting.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

ORDINARY meeting held at the Adelaide Hospital on Thursday, January 26, 1893. Present: The President (Dr. Way), Treasurer (Dr. Corbin), and Drs. Clindening, Hayward, Jay, Stewart, Michie, A. E. Wigg, Swift, J. A. G. Hamilton, Morris, Ewbank, Hope, C. Margarey, Giles, T. K. Hamilton, Rogers, Perks, Todd and the Hon. Secretary (Dr. Lendon).

Dr. Jenkins, Secretary of the Sydney Branch, was present as a visitor.

Pathological specimens by Professor Watson (per M. Marceau), Drs. Way and Ewbank.

LIVING EXHIBITS.—Dr. Giles, cleft palate—successful operation, also injury to foot from molten slag; Dr. T. K. Hamilton, ophthalmic cases; Dr. Lendon, myxœdema; Dr. Morris, aneurysm of popliteal—ligature of popliteal artery; and by Dr. Todd.

DR. T. K. HAMILTON exhibited the following two cases:—

NO. I.—SEVERE SYMPATHETIC OPHTHALMIA WITH RESTORATION OF GOOD VISION.

G. C., aged 13 years, six years ago got a severe blow from a goat's horn on the right eye, which destroyed and rendered it quite useless. Six months afterwards the vision of the other eye began to fail, and three years from the time of the accident the injured globe was enucleated.

He first came under my care in September, 1890. The condition of the eye then was as follows:—

Marked ciliary injection and signs of irritation; anterior chamber shallow; pupil adherent and nearly closed with exudation, T=? + V=fingers at 3.m.

Critchett's operation was performed three times at intervals of some months, and after a final discission of capsular remains in July, 1892, the eye was restored to its present satisfactory condition, viz.: Pupil fairly clear, eyeball free from all signs of irritation, T=n.

$$V = \bar{0} + 12\ D.\ \tfrac{6}{12}\ \text{(partly)}.$$
$$\text{and } \bar{0} + 16\ D.\ J.\ 1.\ \text{at } 7\ \text{c.m.}$$

The patient is now able to earn his own livelihood, while two years ago he had to be led about, and was seeking admission into the Institution for the Blind.

NO. II.—A NEW METHOD OF DEALING WITH RECURRENT PTERYGIA.

G.F., aged 25, came under treatment for double pterygium of the left eye towards the end of 1891. The growths were large and fleshy, and had already invaded the cornea for about 3 m.m. on each side. They were removed and the conjunctiva brought together by sutures over the raw surfaces. Re-growth soon followed the first and also the second removal, so it became apparent that some other device must be resorted to to prevent recurrence.

Teale's operation for symblepharon suggested to my mind the procedure, the details of which I am about to relate, and its adoption in this and two other similar cases has given me the most satisfactory results. The following was the method adopted:—The pterygium was dissected up from the cornea and conjunctiva in the usual way, and no portion of it was removed. A conjunctival flap was then dissected from above the cornea, 3 to 3.5 m.m. wide, and extending in length from the upper border of the original growth to a point on the same level opposite. This flap, for which a small pedicle was left, was then twisted on itself and interposed in the vertical position between the cornea on the inner and the apex of the retracted growth on the outer side. Two sutures only were inserted, one to unite the end of the flap to the free margin which formed the lower boundary of the original growth, and the other to unite the flap at its centre to the pterygium. The latter suture should never be omitted, as it is necessary to prevent the flap becoming adherent to the raw corneal surface recently exposed.

This operation is particularly suitable for dealing with pterygia which partake, as many pterygia do, of the symblepharon character, and where it would be manifestly bad surgery to remove any of the pterygium and run the risk of still further limiting the movement of the globe by increasing the symblepharon. And not only does the introduction of the flap allow of relaxation of the connection to the lids, but the interposition of a band of tissue, whose fibres run in an opposite direction to that of the original growth, offers an effectual barrier to the further progress of the pterygium inwards. This is the principle underlying the modified operation recently recommended by Dr. Evans, of Sydney.

Amongst other advantages which might be claimed for the operation are the following:—

It is eminently conservative, as in some cases no tissue need be removed at all from the eyeball, and only in those cases in which the pterygium is long is it necessary to cut off a portion of its apex and prevent redundance. Secondly, no portion of the sclerotic is left exposed, and thus a cicatrix of fibrous tissue is avoided; and, lastly, a strip of healthy conjunctiva is inserted into that part of the globe, which, on account of its exposure between the commissure of the lids, needs more than any other the protection thus afforded.

The minutes of the special meeting in December were taken as read, on the motion of **Dr. Hayward**, seconded by **Dr. Giles**.

Dr. Hayward read his paper, which was discussed by Drs. Clindening, Lendon, Jenkins, Swift, Jay and the President. Dr. Hayward replied.

TWO CASES OF TETANUS.

By W. T. Hayward, M.R.C.S., &c.

Case I.—(Notes by Mr. Irwin, Acting House Surgeon.)

A. T., *æt.* 6. Admitted into Adelaide Children's Hospital on the evening of January 3, 1893.

History of case given by parents.—Boy ran a splinter into his right big toe eight days ago. He commenced to be poorly three days ago, when he vomited once. Was very languid the following day. About 12 hours before admission it was noticed that the boy could not open his mouth. He cannot take solid food but drinks liquids. About nine hours ago the face was noticed to be drawn to the right side and the right side affected. Complains of pain in the abdomen ; complained of "headache all over."

On examination.—There it constriction of the masseters, and the mouth can only be opened just enough to allow the protrusion of the tip of the tongue. The mouth is drawn to the right side, and the patient stands and walks with the body flexed at the pelvis, tilted to the right side, the head retracted a little and the right leg flexed at the knee. There is a slight blister containing a small quantity of pus on the under surface of the right big toe. The abdominal muscles are tense, and patient complains of pain in epigastrium. Temperature 99 ; pulse 88, regular. Chloral hydrat. gr. v every four hours.

January 4.—Patient very restless all night ; medicine at 10 p.m. ; was mostly regurgitated through nose ; he swallows with difficulty ; complains of pain in chest when doing so. Bit the tongue four times ; lay on chest most of night ; while lying on left side had "twitchings" of right side about five times ; complained of pains in left side of head and in the chest. Takes milk fairly well from a spoon. No opisthotonos. Epidermis cut away round the wound ; a splinter of wood about a quarter of an inch long removed. Vesper.—Has lain on chest most of day, is very restless and complains of sore throat. The right sterno-mastoid tense and painful when stretched ; trismus more marked ; opisthotonos frequent when moved ; has had some twitchings as before ; plantar reflex on right side less than on left. Medicine every two hours.

January 5.—Had frequent severe spasms during night and did not sleep ; was very restless and only took ʒii of milk, though he took medicine fairly well from a spoon. About 1 a.m. nurse said he stopped breathing ; he soon resumed, but respirations were laboured, 36 to the minute ; pulse 120, regular, and fairly full ; temperature 101·6. The same thing happened at 5 a.m., and respirations were accompanied by gurglings in trachea. 6 a.m., temperature 105, and just before 7 a.m. he stopped breathing again and was unable to be revived.

Case No. II.—(Notes by Dr. C. Mead, House Physician Adelaide Hospital).

F. P., *æt.* 34, married, painter, admitted into Adelaide Hospital February 5, 1892. Patient states that about a fortnight ago, while painting, he was seized with pain in the back of the neck, and he was also unable to open his mouth. He took a packet of Epsom Salts and got better. He went on with his work, but a week later he had pains in his belly and was obliged to lay up. Since then he has been under medical treatment. The pains subsequently attacked the testicles and were very severe. At the present time the greatest pain is along the sternum, though there is still some at the back of the neck. Had to have his water drawn off, and there is some difficulty in passing it. The bowels have been confined ; only moved by enemata ; not so for past week.

Past History.—Colic four years ago. Influenza three months ago ; has only recovered about three weeks. No history of any injury, nor of exposure to cold or draught.

Family History.—One sister died, he thinks, of apoplexy, and a brother had a sunstroke and died in the lunatic asylum. Both parents and other brothers and sisters alive and healthy,

On examination.—No wound or trace of recent scar detected ; reflexes normal ; pupils greatly contracted, (?) morphia ; both eyelids kept nearly closed, though patient is able to open them. There is stiffness of the jaw, but with a little trouble he is able to open his mouth about an inch ; says that he bites his tongue if he protrudes it. Mental condition clear ; temperature normal on admission ; respiration 36 ; pulse 102, regular.

Lungs.—Nothing abnormal detected.

Heart sounds and position normal. A slight friction rub heard over precordial region on inspiration and expiration.

Liver dulness normal.

Abdominal walls hard and contracted.

Legs somewhat stiff, but movements otherwise perfect. Muscles at back of neck slightly contracted ; head inclined to extension, neck somewhat stiff. No abnormal prominence or deviation in spinal processes. No tenderness on percussion or application of heat or cold. The least irritation causes contraction of muscles. Spasms come on every three minutes or so, oftener if any part of body is irritated. Risus sardonicus present during paroxysm. To take chloral hydrat. gr. 25, pot. brom. gr. x, every six hours.

February 6.—Had to have his urine drawn off last night (it was acid, specific gravity 1,030, no sugar, no albumen) ; since then has passed it naturally. Spasms not so frequent nor so intense. Did not sleep at all during night. Morphia gr. ⅙ hypodermically had no effect.

February 7.—Temperature last night 101.2 ; slept about four hours ; spasms less frequent ; slightly delirious ; slight friction rub heard over precordium. Evening.—Has had from 20 to 30 fits to-day. Temperature 102 ; had no chloral since 4 a.m. ; has not slept to-day ; not much dysphagia ; chloral to be resumed as before.

February 8.—Temperature 100 ; pulse 104, fairly strong ; had had several severe spasms this morning, and is in a slightly comatose state ; very thirsty. 3 p.m.: Patient has had 100gr. of chloral hyd. since 8 p.m. last night ; spasms less frequent ; slept four hours ; no adventitious signs in chest.

Patient's condition remained much the same for the next four days, the temperature coming down to normal and the spasms decreasing in severity ; chloral reduced to gr. xx. three times a day.

February 12.— Temperature 101 ; complains of pain and stiffness in right leg ; tongue thickly coated ; bowels constipated ; chloral increased to gr. xxv. ; hst. alb.

February 14.—Very restless during night and delirious in early morning ; stiffness in leg gone ; gets no severe paroxysms, but occasional stiffenings ; temperature 99 ; pulse 100.

February 16.—Temperature normal ; pulse 66, full and regular ; sleeping a good deal ; spasms have practically ceased ; abdominal walls less rigid ; delirious at night ; tongue thickly coated at back, cleaning at tip and sides ; bowels constipated, moved by doses of hst. alb. every morning ; chloral gr. x. t.d.s.

For the next three weeks Dr. Swift took charge of my wards. I quote the following extracts from the case-book :—

" February 18.—This morning had the worst attack he has had since admission ; lasted three-quarters-of-an-hour : opisthotonos ; cramps ; profuse sweating. Gave chloral gr. xxx. ; vomited ; repeated gr. xx., partially vomited ; quiet afterwards ; no trace of any injury found anywhere.

" February 19.—Only one slight stiffness this morning ; abdominal walls still distinctly rigid and stiff ; tongue moist and furred ; bowels not open ; pulse 84, small and weak ; not delirious last night ; taking good quantity of milk and beef tea ; hungry ; face has still peculiar drawn appearance.

" February 24.—Stiffness in legs only in mornings ; abdominal walls still very hard ; divisions of sheath of recti and digitations of oblique muscles still stand out ; insomnia at night ; temperature normal ; bowels confined ; still some fur on dorsum of tongue ; feels a little stiffness about jaws.

" February 28.—Got up for first time.

" March 1.—Can walk without assistance ; shuffles feet along the ground ; can bend knees freely, but cannot stoop to pick up anything off ground ; bowels have been acting naturally during past week."

Symptoms from this date gradually improved, and patient was sent to Convalescent Hospital on March 21.

On March 28 he reported himself. He was putting on flesh, and felt very well. There was still some stiffness of jaws, and legs were rather stiff at night. Shortly afterwards he resumed work.

Remarks.—We have here typical examples of the two varieties of tetanus—the traumatic and the idiopathic. With regard to the former the salient points seem to be the trivial injury, the rapid development, and the mode of death. Of course it is well known that a very minor injury may lead to the development of tetanus, and here it was of the smallest. The splinter of wood was only about a quarter-of-an-inch long, and it was not deeply imbedded in the tissues. It had remained *in situ* eight days, but it had not caused any local irritation to speak of. Is there anything peculiar in the locality of the injury—the big toe? In the only other case of tetanus that has come under my observation at the Children's Hospital the only cause that could be ascribed for the disease was an abrasion on the big toe due to a nail, and that was completely healed when tetanus developed. On two occasions lately, when amputating the big toe, I have been struck with the extreme sensitiveness of the part. Both times the patient was apparently deeply under the influence of chloroform, and the conjunctival reflex was abolished ; yet on cutting through the skin on the under surface, the patients sharply drew up the leg. The rapid development of the disease is shown by the fact that death ensued in less than 48 hours from the time the first symptoms were noted. Death appears to have been due to a spasm of the diaphragm. This is stated by some authorities to be impossible, for they say that the poisoning by carbonic acid would effectually relieve the spasm ; but the fact that on two occasions prior to the fatal one the breathing suddenly ceased and the child nearly died, is evidence that such is not always the case. There is one other point of interest, viz., that the tetanic symptoms were most developed on the right side—the same side as the injury.

With regard to the idiopathic case: I believe some authorities doubt the possibility of the disease arising without some external lesion; and when one considers how slight a lesion may induce it, it is conceivable that it might easily be overlooked, especially in the case of a child who may be unable to give a definite history. In the case, however, that I have presented to you, the patient was a man in full possession of all his faculties, and he positively denied having received even the slightest injury. I carefully examined him, and could find no trace of any recent scar, and I see by the notes that Dr. Swift was equally unsuccessful. The mode of onset was peculiar, for the initial symptoms made their appearance a fortnight prior to development of the disease, and were so slight that they were not recognized by his medical attendant. He was sent to the hospital as a case of lead colic.

In the supplement to the *British Medical Journal* of December 26, 1891, there is a note headed "Tetaniform Convulsions in Influenza," in which Dr. Moretti relates a case where a woman, aged 46, was seized with influenza, and shortly after tetanic symptoms developed, so much so that "the disease presented all the clinical features of tetanus." He also refers to a similar case published by another Italian physician. In my case the history shows that the patient had only recently recovered from a severe attack of influenza, but whether the tetanus merely followed it or was a sequel to it there is not sufficient evidence to establish. I am inclined to favour the latter view, one straw in its favour being the coincident pleuritic rub—a complication I have not seen mentioned in cases of tetanus, but far from uncommon in any of the stages of influenza. Besides, the sequelæ connected with the nervous system are so numerous, and so varied, that it is not difficult to include an additional one.

The treatment adopted was the free and continuous administration of chloral hydrat., and it was noticeable that the symptoms increased in severity when the dose was reduced, and were alleviated on increasing it. For a month the patient was taking the drug continuously, 100gr. daily for the first few days, 60gr. for the next week, and 80gr. for the remainder of the time. A few spots that might have been a chloral rash were noticed during the course of the disease.

I am indebted to my friend, Dr. Borthwick, for the following.

Bacteriological Note.—A specimen of pus was taken from the wound on the day of admission into the hospital. A coverglass preparation was made, and stained with Lœffler's blue, and numerous micrococci and bacilli were found under the microscope. The micrococci were arranged singly in twos and in short chains, while some occurred in small clumps. The bacilli were slender rods with rounded ends, their breadth being about the diameter of the micrococci and their length four times as great. Two were very frequently attached, and in some instances more were united in short threads. There was no indication of the characteristic drumstick spore formation. No cultivation was made.

DR. GILES read his paper, which was discussed by Drs. J. A. G. Hamilton and Hayward. Dr. Giles replied.

BASSINI'S METHOD OF THE RADICAL CURE OF INGUINAL HERNIA.

By W. ANSTEY GILES, M.B. ET CH.M. EDIN.,
SURGEON TO THE ADELAIDE HOSPITAL AND LECTURER ON CLINICAL SURGERY IN THE UNIVERSITY OF ADELAIDE.

◆

MY attention was first drawn to this operation by the perusal of Mr. Hulke's clinical lecture on the subject which appeared in *The Lancet* of the 16th July, 1892, giving details of one case operated upon by this method with a satisfactory result.

In spite of considerable suppuration which delayed the patient's recovery, so that nearly three months passed by after the operation before he was in a fit condition to leave the hospital, a cure was effected. He was discharged wearing a light truss, which was not discarded till 12 months later, when he returned to report himself. There was no evidence of any tendency to recurrence; the scar appeared sound and did not show any sign of bulging when he strained or coughed.

Mr. Hulke remarks: "So numerous are the surgical methods devised in the last two decades of this century for the radical cure of hernia, and so preponderant are the advantages claimed for each by its originator, that the young and as yet inexperienced surgeon may well feel some bewilderment when first he approaches the subject practically. Here a principle laid down by Professor John Wood will help to guide his choice, viz., to discard every method which does not aim at closing the neck of the sac and at reducing the internal abdominal ring to the extent sufficient only for the passage of the spermatic cord. Both these desiderata are very certainly effected by

Bassini's method, which also strengthens the outer part of the posterior wall of the inguinal canal, where naturally it is weaker; and this it does with, I think, greater precision than is attainable by other methods."

In the John Hopkins Hospital Reports for 1st March, 1891, Mr. Halsted describes the operation designed by Bassini in the following words: "The skin incision extended from a point about two centimetres internal to the anterior superior spine of the ilium to the spine of the pubes. The subcutaneous tissues were divided so as to expose clearly the aponeurosis of the external oblique muscle, the external abdominal ring, and the sac of the hernia. The aponeurosis of the external oblique muscle, the internal oblique, the transversalis muscle and the transversalis fascia were severed to the outer extremity of the skin incision. An incision large enough to admit two fingers was then made into the sac. The index and middle fingers of the left hand, with a small piece of sterilized gauze, were passed into the sac. By them the hernial contents were pressed back into the abdominal cavity and over the fingers; the sac, first on one side and then on the other, was drawn tense and held by the thumb of the same hand, while the tissues in which the sac was embedded were stripped off from it by the other hand. With the division of the abdominal muscles and the transversalis fascia the so-called neck of the sac vanishes. There is no longer a constriction of the sac. The communication between the sac and the abdominal cavity is more than large enough to admit one's hand. The sac, having been completely isolated, was torn more widely open, and the peritoneal cavity was closed as deeply as possible by seven or eight quilted sutures of fine silk. The sac was then cut away quite close to the line of the peritoneal sutures. The vas deferens and its vessels having been isolated, they were hooked up into the outer angle of the wound by a quilted suture, which included the transversalis and oblique muscles and the aponeurosis of the external oblique muscle. This suture was the first of a row of seven or eight quilted sutures of strong silk which were passed deeply through the pillars of the ring and through the divided muscles of the abdominal wall. These sutures were taken very close together, were made to include the deepest tissues available, and were tied tight enough to bring into close apposition the broad surfaces which they embraced." Halsted reports 21 cases operated upon by him in which this method was employed with perfect success.

Mr. Watson Cheyne, before concluding his paper on the radical cure of femoral hernia by turning up a flap of the pectenius muscle (published in *The Lancet* of 5th November, 1892) mentions the marked success which has attended all his operations by Bassini's method. Twenty patients were submitted by him to this form of radical cure of hernia, and he considers the result perfect in every instance.

Mr. Watson Cheyne describes his method of operating as follows: "After freeing the sac and returning its contents its neck is transfixed, ligatured, and stitched to the abdominal wall in the manner described by Barker. The external oblique is then slit up as far as the internal ring, the incision being carried a considerable distance away from Poupart's ligament. The inguinal canal is thus fully exposed, and the cord is then freed from its coverings as high up as possible. It is held forward by the assistant, and then a series of stitches are passed through the internal oblique and conjoined tendon above, and including Poupart's ligament below in the manner introduced by McEwen. When these are tied the inguinal canal is completely closed by a bootlace suture of fishing gut, sufficient hold of the tendon being taken to render it tense over the cord, and only room enough being left at the external ring to allow the cord to escape." He further adds: "The operation as I have described it is in its essence Bassini's, but it is not carried out exactly as he describes; in fact it is a combination of various operations. Thus the method of cutting off and tucking up the sac and the use of silk is borrowed from Barker; the principle of bringing the internal oblique to Poupart's ligament behind the cord is Bassini's, and the mode in which the stitches are applied is borrowed from MacEwen; the use of silkworm gut for the incision in the external oblique is from Stanley Boyd, and the bootlace suture I used myself, but I find that Boyd had also used it."

I have quoted freely from papers published by well-known surgeons as an introduction to my report on a case of very severe and long standing inguinal hernia, which I consider cured after the operation by Bassini's method. At any rate the man's condition is now most satisfactory in every way, and I bring him before you to-night so that you may have an opportunity of inspecting the result. Whether this is going to be a permanent success or not of course time alone will show, but you now see him nearly three months after the operation was performed, and you will, I am sure, allow that present appearances warrant my belief that no recurrence will take place.

C. U., *æt.* 57, labourer, was admitted into the Adelaide Hospital on the 12th March, 1892, complaining of a very large inguinal hernia on the right side.

History.—About 37 years ago he met with an injury which caused a rupture on the left side, at first very large, but gradually it became smaller until a lump about the size of a walnut remained; and this still exists without occasioning the least inconvenience. Three years ago when jumping from a dray he strained himself, and a rupture appeared on the right side. This gave him great pain, especially when moving about, or whenever he coughed or sneezed.

The bowel could be easily reduced when he lay on his back, but it at once reappeared when he assumed the erect position. Pains of a most acute character seize him very frequently in the umbilical region, lasting a day or more, during which time he is unable to move. He has tried trusses of various shapes and sizes without benefit, as they all failed to keep the bowel in its place. The rupture during the last 12 months has been growing larger, and the pain and inconvenience caused thereby is intensified, so much so that he is now invalided, and is quite unable to earn his living.

Present Condition.—A very large swelling about the size of two fists is present in the scrotum on the right side, which is tympanitic on percussion, gives an impulse on coughing, and the contents can with the greatest ease be pushed back into the abdominal cavity. The external inguinal ring is abnormally patent, and four fingers can be readily passed through it. The hernia appears to contain gut alone.

On the 16th March, 1892, the patient was anæthetized with ether, and the radical cure by Barker's method was performed. I made the usual herniotomy incision, and after exposing the sac I opened it, and found it contained bowel only, which I reduced without difficulty. I then separated the sac from the structures of the cord, and passed a silk ligature around the neck of the sac, which I tied firmly. I then divided the neck about half-an-inch in front of the ligature, and closely followed Barker's instructions when fixing the stump into the internal ring. The pillars of the ring were brought together by means of five sutures, and no attempt was made to dissect the distal portion of the sac away from the scrotal tissues. A small drainage tube was employed, the edges of the skin incision were brought together, and an antiseptic dressing was firmly applied.

I will not weary you with a detailed account of the convalescence, but will briefly state that some suppuration followed, necessitating the prolonged use of a drainage tube, and several pieces of silk came away.

The wound was perfectly healed on the 25th April.

On the 5th May he was sent to the Convalescent Home, and at that time the result appeared to be fairly good. There was no abdominal ring to be felt, nor was there any impulse on coughing.

About the 20th May I saw him again, when there were evidences of a recurrence of the hernia. I had him fitted with a light Salmon and Ody's truss, which appeared to act well, and a few days subsequently he left for his home.

I did not hear of him again until the following October, when I received a letter from Dr. Nall, of Yorketown, giving a very doleful account of his condition. The truss had for some time failed to give any support, and the hernia was larger and more painful than ever. I wrote back, saying that I thought Bassini's operation was the correct procedure to attempt in such an aggravated case, and on the 8th November, 1892, the patient was readmitted to my ward in the Adelaide Hospital.

The note-book contains the following entry:—

"*History.*—The patient states that about two weeks after getting out of bed after the last operation he noticed a swelling in the right groin, which gradually increased in size. He wore a truss until about a month ago, when he left it off, as it failed to keep the rupture up. The bowel now descends and remains down while he is in an erect position. He has constant pain when standing up or walking about; bowels act regularly. He says the rupture is bigger now than ever it was before. The small rupture on the left side gives no trouble whatever.

"*Present Condition.*—There is a very large inguinal hernia on the right side. The bowel is easily returned. The ring is very patulous, admitting four fingers, and a strong impulse is obtained on coughing. The skin is puckered and scarred over the hernial protrusion."

On the 9th November, 1892, ether having been administered, I operated, Dr. Todd, my Assistant Surgeon, lending me valuable aid. I carefully carried out in every detail the operation so clearly described by Halsted, which I have already given in his own words. No difficulty of any kind was experienced in following the instructions laid down. No omentum was discovered in the sac, and the protruded bowel was not adherent to the body or neck of the sac in the slightest degree. I did not attempt to dissect away the sac after division, but closed the open mouth with a continuous suture and left it *in situ*. After the quilted sutures were inserted into the peritoneum, and the sac separated, that membrane applied itself smoothly and evenly to the inner aspect of the abdominal wall.

On the 16th the wound was dressed for the first time, and healing had occurred by primary union. The stitches were removed.

On the 24th the wound was soundly healed, and the patient felt perfectly well. There was not a sign of suppuration or trouble of any kind. A light spica bandage has been worn ever since.

Mr. Hulke says: "So far as the experience of a single case warrants me in forming an opinion, Bassini's method is more severe than some others, and I am inclined to reserve it for exceptional cases."

It is certainly more severe than some operations for the radical cure of hernia, but I should say it is well adapted for any case of large inguinal hernia.

The principles we should endeavour to carry out in any such operation are kept in view by the originator of this method, viz., the importance of abolishing the neck of the sac and the thorough closure of the internal ring. The altered position of the cord seems to cause no inconvenience whatever to the patient, and enables the operator to close completely the external ring by stitching the conjoined tendon to Poupart's ligament. My personal experience of Bassini's operation is limited to this case, so I cannot speak with much weight on the subject; but judging by this particular instance and the many successes already recorded, it is well worthy of attention and trial by all surgeons.

Dr. J. A. G. Hamilton congratulated Dr. Giles on his paper, and remarked that he had not an opportunity of reading an account of Bassini's operation, and it was difficult to follow all the details in a paper; but from what he gathered from Dr. Giles's remarks, he thought it was a decided advance in hernial surgery. "Radical cure" of hernia was somewhat a misnomer, as we all found that the so-called "Radical cures" were often followed by a relapse. He published a series of 18 cases of the radical operation some three years ago. Since that he had had four more; a large percentage of these were operated on by Ball's method, namely, twisting the sac. A few of these in which it was impossible to separate the sac on account of dense adhesions were operated on by Banks' or Macewen's or Barker's method. It appeared to him the essential part of the operation lay in the absolute obliteration of the sac without leaving a depression at its opening into the peritoneum. Most of the operations at present in vogue do not get over this difficulty, except Ball's. In this operation the twisting of the sac obliterated it right up into the peritoneum; but even then it was followed sometimes by failure. In his series of 24 cases about 70 per cent. were successes, and he would hail with pleasure any operation which would give us a greater certainty of a radical cure. It appeared to him that it would not be always possible to carry out Bassini's operation in its entirety without damaging the cord if adhesions were present. He was very much struck with an account of a new operation published by Dr. O'Hara, of Melbourne. This appeared to possess the advantage of getting rid of the depression by fixing it to the abdominal wall outside and above the internal ring.

Dr. Monsell's paper was read by the Secretary.

NOTES ON A CASE OF SUPRAPUBIC LITHOTOMY.

By F. W. Monsell, L.R.C.S. and L.K.Q.C.P.I.

It is by a record of experiences that the system of surgery is mainly built up, and much credit is due to the surgeon who will come forward and record his failure in an operation, giving his reasons for same, as it may be a means of avoiding a stumbling block in future operations, as the surgeon who will only record his successful cases.

Young surgeons are no doubt prone to hide their errors, fearing the expressive curl of the lip or shrug of the shoulders of their rival colleagues more damaging perhaps than words. How far from the spirit that ought to pervade the minds of a body of men ever struggling to battle against the one common enemy of mankind—disease and death—and any crumbs of knowledge gained at an operation, and useful to the practical surgeon, are always acceptable! The following operation afforded me one of these opportunities:—

Thos. M., *æt.* 39, first complained of pain and irritability of the bladder 20 years ago, his trouble increasing, getting gradually worse till 10 years ago, when he first noticed he was passing blood, and ever since was getting into a very bad state of health till about eight months ago, when he called on me. Suspecting a stone I passed a sound, but with negative results. I was greatly impeded in the manipulation by the irritable and painful condition of the urethra, so I treated him medicinally, when he returned that day week expressing himself much improved, and so on for three weeks, when I lost sight of him, till on the 8th of last September his friends brought him to me at Crystal Brook, when I learned from him that he soon relapsed into his former condition, and sought the advice of a quack, who first adroitly abstracted a large fee and then a flattering testimonial telling of his "wonderful cure."

On his arrival in Crystal Brook after a twelve-mile drive his condition was painful to witness. He wanted to pass water every two minutes, after which he would suffer exquisite pain for about five minutes; face swollen and lardacious-looking; urine—s. g., 1010 and containing albumen and blood.

On the following day I administered chloroform, and proceeded to pass a sound. His former experience of the pain, and mine of the difficulty in passing the sound, decided on the administration of an anæsthetic. The instrument now went in without any difficulty, but I failed to detect anything till, by turning the beak of the instrument upwards and depressing the handle, I detected a stone situated in the fundus; so I at once decided on operating, and choosing the suprapubic method, operated, with the assistance of Dr. Carr, two days later.

Chloroform was the anæsthetic used, in spite of the popular prejudice against this excellent drug, and which prejudice, I am sorry to say, I find swaying the medical mind also, and not from any conviction of its inferiority to ether, but from the fear of public disrepute brought on by a prejudice its abuse and careless administration has dragged it into. I may say I have never had an accident with it, and I give it almost daily.

After the usual preliminaries had been gone through, using antiseptic measures in the washing, &c., I made my incision; but after dividing the linea alba, the rigidity of the recti muscles, which could not be overcome, led me to make a slight departure in the operation; and this is the point I found so useful afterwards as well as at the operation. The edges of the muscles so gripped my finger that it was almost impossible to reach the bladder, even with the aid of retractors, so I cut the fibres of the muscles transversely on each side to the extent of about three-quarters-of-an-inch, thus facilitating my easy entrance into the bladder, after which I had no difficulty in extracting a large phosphatic stone weighing 510 grains. The advantage of this transverse nicking of the recti afterwards became evident by not allowing the external wound to close too quickly, which I am sure would have been the case; for on the 5th October, which was only 25 days after the operation, the drainage tube came out, leaving only its track, which closed up almost immediately, for on the 8th the wound had closed, and he was passing water by the urethra. But two days later the urine became very ammoniacal, and contained a thick yellow sediment; so I washed out the bladder with a weak boracic lotion, and during the performance a small quantity of gas escaped through the catheter. This was probably the air which had been imprisoned on the closing of the wound. and set up decomposition; for after this his recovery was rapid and uninterrupted, and in one month after the operation he was able to return home, and a few days later reported himself as feeling nearly as strong and well as ever he felt in his life.

On the day after operation his urine registered, s. g. 1020, and albumen much less and diminishing each day, till now it is quite free.

Now, in this operation, some authorities advise a transverse incision in the skin and muscles, and some the longitudinal, the objection to the former being a liability to ventral hernia afterwards, and the latter to a too rapid closing of the external wound; but by a judicious combination of both, I think, will secure the advantages of both without the disadvantages and risk of either incision alone.

Ballot.—Drs. C. G. Cavenagh-Mainwaring, F. J. Elliot, A. E. Gibbes, D. T. Harbison and C. G. MacLeod were duly elected members of the Association.

ASSOCIATION OF REGISTERED MEDICAL PRACTITIONERS OF SOUTH AUSTRALIA.

The Fourth Annual Meeting of the above Association was held at the Adelaide Hospital on Tuesday evening, December 20, 1892. The following members were present: Dr. Jay (President), Drs. Todd, A. A. Hamilton, J. A. G. Hamilton, Hayward, Hon. Dr. Campbell, Drs. Swift, Marten, Lendon, Ewbank, Morris, Lawrence, Astles, Harrold, and Michie (Hon. Sec.).

Dr. Hayward (Treasurer) reported a credit balance of £38 15s. 4d.

Secretary's Report.

There have been four meetings of the Council of the Association during the year.

The first case dealt with was that of a licentiate of the College of Physicians and Surgeons, Edinburgh, who was practising in Adelaide in conjunction with a quack. A copy of his advertisement which appeared in the daily papers and of a pamphlet which he caused to be distributed were forwarded to the Secretary of the College of Physicians and Surgeons, Edinburgh, and they were requested to take any action they should think fit. The College of Physicians replied as follows:

"I am authorized to inform you that the College have unanimously entertained a motion for Brierley's expulsion; this motion will be determined at a future meeting."

A subsequent communication from them ran thus:

"As Mr. Brierley has sent an unconditional apology for his past conduct, and has undertaken now and for ever to desist from any unprofessional methods, the College has withdrawn the motion for his expulsion and merely censured him for the course of conduct which he had adopted."

The result has been that the advertisements and pamphlets have been discontinued.

Dr. Smith, of Redhill, wrote complaining of the injustice done him in that an unqualified practitioner continued to hold the appointment of Public Vaccinator for the district in which he was practising.

The attention of Dr. Whittell, the President of the Central Board of Health, was drawn to the case, who referred the matter to the Chief Secretary. He replied that, "As Mr. Gerney has for more than 10 years discharged the duties of Public Vaccinator in the district of Redhill, so far as I am aware in a perfectly satisfactory manner, I cannot recognize the advent of a duly qualified medical practitioner as a sufficient reason for cancelling his appointment." Dr. Smith also holds the appointment of Public Vaccinator.

A member of our Association wrote to the Council regarding the practice of one practitioner holding another responsible for bad debts in consultation or other cases, and objecting to accounts being rendered from one practitioner to another.

The Council were of opinion that where there is a doubt of the patient being able to pay the fee, arrangements should be made with the consultant beforehand, and that the practice of rendering accounts, although not generally adopted, is made use of by some practitioners as a matter of convenience.

The existence of what is called a Mutual Provident Medical Institution was brought under the notice of your Council. It is worked by two agents who employ canvassers to go round from house to house and endeavour to persuade people to join it. Several private patients of different medical men have complained to them of the persistency of these canvassers; the greater part of the profits go to the agents, who pay the medical man a certain sum per family on his list.

Circulars have also been distributed having the names of the surgeons attached whom they may get to attend them.

It was thought that if such an institution were allowed to prosper it would be prejudicial to the interests of the profession.

The surgeons whose names were attached to this circular were written to and their attention drawn to this fact. One replied stating that he would be glad to explain his connection with the Institution at a General Meeting of our Association.

The Council would impress on registered practitioners in South Australia the advisability of their joining the Association. A single subscription of one guinea constitutes membership. Members may obtain a copy of the scale of fees adopted by the Association on application to the Secretary.

In the interests of practitioners it is very desirable to have an association of this kind to refer to, should the necessity arise.

Dr. Astles explained the way in which the abovementioned Mutual Provident Medical Institution was worked. He stated that he was one of its medical officers, that subscribers had to sign a declaration before joining that they did not suffer from any chronic complaints. He informed the meeting that he could strike any name off his list and refuse to attend them, and that the institution had no legal status whatever; the Society was not a benefit society; the medical officer received a certain sum per family per annum; the remainder went to the agents.

The Hon. **Dr. A. Campbell** stated that until he heard the report he was not aware of the existence of such a Society in Adelaide, but from what he learned of the methods by which the Society was conducted he disapproved of members of our association connecting themselves with it.

Drs. A. A. Hamilton, J. A. G. Hamilton and **Morris** expressed themselves strongly in opposition to members of the Association having any connection with such a society.

Dr. Hayward moved: "That this Association, disapproving of the principles and methods of the Mutual Provident Medical Institution, considers that members of this Association should not connect themselves therewith."

Dr. A. A. Hamilton seconded.

Carried unanimously.

Dr. Astles replied that he could not resign at once, as his agreement with the Society did not terminate for another year, but promised that if at the end of that time the constitution of the society were not altered so as to give it proper legal status he would resign.

A vote of thanks was accorded Dr. Astles for attending and giving members the above explanation.

The following office-bearers were then elected for the ensuing year: President, Dr. Todd; Hon. Treasurer, Dr. Hayward; Hon. Secretary, Dr. Michie; Council, Dr. Jay, Dr. Swift, Dr. A. E. Wigg, Dr. Lawrence.

EASTERN MEDICAL ASSOCIATION OF SYDNEY.

A special general meeting of the members of the Eastern Medical Association took place at Waverley on Tuesday, February 1. Dr. Collins, President, occupied the chair, and there were present: Drs. F. H. Quaife, Barkas, Mullins, Parker, Matheson and J. A. Dick. The **Hon. Secretary** (Dr. Mullins) announced that during the month of January five new members had joined the Association, viz., Drs. A. H. Fieldstad, C. A. Ponder and J. A. Dick, of Randwick, Dr. M. Matheson, of Waverley, and Dr. W. Camac Wilkinson, of Woollahra. The principal business of the meeting was the consideration of the rules and by-laws of the Association. The Council, having found that some of the existing rules required alteration, brought up an amended set of rules and by-laws. These new rules were discussed at length, and were eventually adopted with slight verbal alterations. The principal alterations provide that the office of President shall not be held by any member for more than two years in succession, and that female medical practitioners shall be eligible for membership.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Anderson, Thomas Primrose, M.B. *et* M.S. Glasg. 1890.
Money, Angel, F.R.C.P. Lond. 1889; B.S. Lond. 1880; M.R.C.S. Eng. 1879; M.B. Lond. 1880.
Wellford, Francis, M.B. Cantab. 1891; B.C. Cantab. 1891.
Freyer, John Kennedy, L. *et* L. Mid. R.C.P. Irel. 1892; L. *et* L. Mid. R.C.S. Irel. 1892.

For Additional Registration:—

Park, Joseph, M. Ch. Syd. 1892.
Shaw, Frederick Charles Seymour, M. Ch. Syd. 1892.
Van Someren, George Arbuthnot, M.D. Edin. 1892.

QUEENSLAND.

Vores, Arthur, M.R.C.S. Eng. *et* L.S.A. Lond. 1879.

NEW ZEALAND.

Church, Robert, M.B. *et* Ch.B. Univ. of N.Z.
Coates, Frederick William, M.D. Edin. 1863; M.R.C.S. Eng. 1863.
Somerville, John, M.D. Edin., M.R.C.S.E.

SOUTH AUSTRALIA.

Walker, William John, M.B. *et* Ch.M. Edin. 1891.

VICTORIA.

Pitcher, Samuel Walter, L. *et* L.Mid. R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892.
Brown, Thomas William, M.B. *et* Ch.B. Melb. 1892.
Morton, James Charles, M.B. Melb. 1892.
Davis, William, M.B. Melb. 1892.
Connell, Egbert John, M.B. Melb. 1892.
Littlewood, Frank Ernest, M.B. Melb. 1892.
Woinarski, Victor Joseph Emanuel Zichy, M.B. Melb. 1892.
Harbison, James Alexander, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892.
Angwin, Stuart Letcher, M.B. Melb. 1892.

Additional Qualifications Registered:—

Duncan, Robert Byron, L. *et* L. Mid. R.C.P. Edin. 1892.
Soilleux, Garnet, M.R.C.S. Eng. 1892.

Cassell's Year-book of Treatment for 1893 will arrive about the middle of March. Orders are now being received by L. Bruck, 13 Castlereagh-street Sydney.

NOTICE.

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, FEBRUARY 15, 1893.

EDITORIAL.

THE SALE OF POISONS IN NEW SOUTH WALES.

A NUMBER of persons have recently been convicted in Sydney for having sold poisons, they not having been authorized to do so either under the Pharmacy or Sale of Poisons Acts. By these laws certain persons are authorized to sell poisons under certain conditions of registration of names and addresses of purchasers and their reasons for requiring the drugs sought to be obtained. The Acts are very defective, and under them many persons are permitted to vend lethal drugs who are in no way fitted for the trust thus reposed in them.

The object of the law existing for this purpose is to render it difficult for persons desiring to commit crime by the means of poison, either against themselves or others; but it is little effective that anyone desiring can obtain what he wants with but little hindrance.

The most noxious compounds, if vended under some arbitrary name, may be sold by without restraint. For instance, "Rough on Rats," which is merely arsenic coloured, has been used in a long series of suicides in New South Wales, and at the inquests it was generally shown that the poison had been purchased at some petty store.

This puny attempt to control the sale of poisons in the mother colony becomes positively ludicrous when it is considered that under the defective laws which it possesses for the regulation of the practice of medicine, any ignorant pretender may write a prescription for the most deadly drug; and this would excuse any chemist from supplying the bearer with what it ordered, even supposing it were made the instrument of the most atrocious crime. What can be more absurd than to attempt to regulate the sale and dispensing of drugs, yet leave it free to any ignorant person to prescribe them? This is the case in New South Wales, and it appears likely to remain so.

Notwithstanding the law is so defective for the protection of life—the purpose for which it was intended—it is very embarrassing to business men, who have, in the interests of the public, to constantly contravene its provisions.

For instance, merchants or large storekeepers have in the course of business frequently to sell two or three hundredweight of sulphate of copper, which is bought by farmers in large quantities for the purpose of steeping wheat previous to sowing, or arsenic for sheep dipping, or say a hundred ounces of strychnia to a large station to poison dogs which are destructive to sheep; each of these transactions renders the seller liable under the Sale of Poisons Act, yet who would say that such vending is likely to give facility for the perpetration of crime against life.

The laws governing the vending of poisons require revision, but to make any great demand for such reform, whilst those regulating the practice of medicine are left undealt with, is absurd.

LETTERS TO THE EDITOR.

ON THE TREATMENT OF ARTICULAR STIFFNESS BY "BRISEMENT FORCE."

(*To the Editor of the A.M. Gazette.*)

SIR,—Last October's *A. M. Gazette* contained an article by Dr. Ph. James in Wellington, N.Z., on the "Treatment of Intra-Articular Adhesions by Forcible Wrenching," in which reference is made to a paper published by me in the July number, entitled "Some remarks on the Treatment of Joint Affections by Means of the Latest Methods of Cure."

As some of my remarks which deal particularly with the brisement forcé have been misunderstood and wrongly interpreted, I have thought it necessary, for the sake of a clear understanding, to rectify those misrepresentations by giving a more detailed explanation of the meaning I wished to convey.

One of the passages in my paper runs thus: "What I mean is the so-called brisement forcé, *i.e.*, the forcible and sudden rupture of adhesions between the articular surfaces and the rapid stretching of contracted fibrous tissue and muscles which are so often the cause of joint anchylosis." From these words Mr. James infers that the only kind of adhesions recognized by me were those between the articular ends of bones. This supposition, however, is an error on that gentleman's part. In the first instance I have to draw my critic's attention to the fact that I did not speak about adhesions between the articular *ends of bones*, but about adhesions between the articular *surfaces*, terms which are altogether dissimilar, inasmuch as the latter includes also the synovial membrane, whilst the former one does not comprise that component of joints.

I have further to state that, by referring to adhesions between the articular surfaces I never intended to deny the possible existence of other adhesions in and around a joint than those mentioned by me. I am well aware that an agglutination of folds of synovial membranes and adhesions between the sheaths of tendons and muscles, &c., may likewise give rise to joint stiffness. I omitted, however, to mention these factors, as it was not my intention to make an exhaustive enumeration of all the causes leading to articular contracture or ankylosis.

Mr. James carps at another paragraph of my paper, which is as follows: "After all, the sudden tension of muscles and forcible rupture of adhesions are only justifiable when the stiffening is owing to muscular contractions, or when it is our aim to attain a permanent fixation of the limb in a more useful position." This sentence, too, has been misinterpreted by my critic, who in his anxiety to disprove my contention has not taken the trouble to think over it properly, for he puts the construction upon the sentence that I condemn the brisement forcé altogether except in joint stiffness due to muscular contractions. This, however, is not true; on the contrary, in the latter part of the paragraph I direct attention to another kind of articular stiffness in which I deem that forcible method of treatment is justified. I had in my mind those forms of articular stiffness depending on articular adhesions, shrinkage of the joint capsule and ligaments, &c., conditions of such gravity which offer little or no prospect of being favourably influenced by milder modes of treatment, and which, owing to their nature, are extremely awkward to the patient. Thus, for example, I do not deny the suitability of the forcible method if the question should arise of improving the condition of an elbow joint ankylosed in extension, or of a knee joint stiffened in flexion, provided that all other available means had been previously unsuccessfully attempted.

Mr. James mentions a case of intra-articular adhesions which he professes to have practically cured in five minutes by means of forcible wrenching. I cannot, for several reasons, regard this case as evidence against the correctness of my contention that the brisement forcé is only *exceptionally* justified. In the first instance, that gentleman is uncertain about the real state of the affected joint. For he says: "It seemed clear that the diagnosis must be either contraction of tendons and ligaments or intra-articular adhesions. Seeing that the movement of flexion was, so far as I could perceive, perfect, and that of extension nearly so, and holding in view the extreme severity of the pain and the slight creaking that could be felt, the latter alternative *appeared* the more probable."

Again, the fact that the movement of flexion of the knee-joint was *perfect*, and the extension movement *nearly* so, is quite inconsistent with the existence of intra-articular adhesions—at least to any greater extent—as the latter would certainly not have allowed an almost unimpaired range of movement. At all events, whatever the cause of the patient's trouble may have been, it must be admitted that a joint, whose movements are next to free, cannot well become an object for a forcible *rupture* of adhesions. This seems to have been recognized by my critic himself, for he cautiously avoids the latter term throughout his paper, and speaks only of a "*forcible wrenching*" of the joint. Yet a forcible *wrenching* of a joint and a forcible *rupture of articular adhesions* are, with regard to the strength of expression, quite different terms, as a forcible *rupture* of adhesions implies always a laceration of tissue, whilst a forcible *wrench* is not necessarily attended by such an injury. Moreover, the operation performed by Mr. James on his patient can, on account of his small expenditure of power, hardly be called a "forcible wrench," as he describes it in the following way:—"Seizing the limb by the ankle, I flexed the knee to the fullest extent,* then placing my left hand on the front of the joint, I suddenly and *rather* forcibly extended the knee. A distinct snap was felt and heard, and subsequently the movements of the joint were found to be perfect."

How softly expressed! Logically we must expect that Mr. James illustrates us an obstinate case of articular stiffness which he cured by means of the brisement forcé †—a powerful manipulation during which the joint operated upon usually crashes in all its junctures—and after all it turns out that the whole operation consisted merely of a *rather* forcible extension of the knee joint attended by a *snap* !

---

* It must be remembered here that the flexion of the knee joint was *quite free*.

† It was only this mode of treatment my previous paper referred to.

I need hardly say that manipulations as described by Mr. James are almost an everyday occurrence in my practice. I rank them simply with the passive movements, though I have no objection to call them forcible wrenching if that gentleman prefers this expression.

Thus we see that my critic completely failed in his effort to disprove my contention regarding the suitability of the brisement forcé.

I take this opportunity of raising my voice once more in warning against the rash and hasty use of the brisement forcé in articular stiffness, for it is superfluous in slight cases, as they more or less quickly yield to the milder modes of treatment, such as electricity, massage, active and especially passive movements, whilst in severe forms which do not give way to those methods of cure it is almost invariably injurious.

I am, Sir, yours, &c.,
ALBIN LURZ, M.D.
Melbourne, December, 1892.

THE NEXT INTERNATIONAL MEDICAL CONGRESS.

(To the Editor of The A. M. Gazette.)

Sir,—In the issue of your journal in December, 1892, were published two letters to Dr. P. Sydney Jones and Professor H. B. Allen from the President and Secretary of the XIth International Medical Congress, which is to meet at Rome in September of this year.

In response to the request therein contained, an Australasian National Committee has been formed, Dr. P. Sydney Jones being President, and Professor Allen Secretary and Treasurer. Local committees have also been formed with a view to bring the matter more forcibly before the profession in their respective colonies.

The New South Wales Committee consists of Dr. P. Sydney Jones (President), Professor Anderson Stuart, Hon. Dr. Creed, M.L.C., Dr. T. Fiaschi and Dr. G. E. Rennie (Secretary).

Our committee is anxious that the attention of the profession in this colony should be directed to this matter, especially as this is the first time that the profession in Australia has been asked to co-operate in an International Medical Congress ; and it would be a pity if the opportunity were lost of showing our appreciation of this recognition, and of taking our part in the work of the Congress. To this end we hope that a large number of members of the profession in this colony will become members of Congress, and contribute papers embodying the results of original observations, particularly on subjects which we in Australia have special facilities for studying, such as, *e.g.*, treatment of hydatid disease. An exceptional opportunity is thus afforded for workers to obtain world-wide recognition of their labours and results. Such papers should be brief, and reach me not later than June 30, 1893. The acceptance of these papers for reading or publication in the Transactions will, of course, rest with the Executive Committee in Rome.

The subscription for membership has been fixed at £1 1s., with 1s. added for exchange; and this will entitle members to a copy of the Transactions of Congress, which cannot fail to contain the latest developments both of the scientific and practical sides of medicine and surgery. Members may, however, be required to pay postage on the Transactions, probably not more than 3s. It has been ascertained that Victoria, New Zealand, and Western Australia will be represented at the Congress by members of the profession from those colonies, and we hope that one or more representatives will proceed from New South Wales.

Subscriptions should be forwarded to me as soon as possible, for transmission to the Treasurer.

I remain, Sir, yours faithfully,
GEORGE E. RENNIE,
Sec. Local Committee of 11th International Medical Congress.
46 College-street, Sydney,
February 8th, 1893.

HYPNOTISM.

(To the Editor Australasian Medical Gazette.)

Sir,—Dr. Richard Arthur, in a courteous letter published in your last issue, takes exception to some words spoken by me at the November meeting of the New South Wales Branch of the British Medical Association upon the subject of hypnotism. Dr. Arthur thinks that my remarks showed that I had not acquainted myself with the history and literature of the subject.

I may not have paid so much attention to the subject as Dr. Arthur, but I can assure him that I have not only read, but thought a good deal upon it, and that it was solely from a sense of duty derived from such reading and study that I uttered a word of caution against the general adoption of a practice which some of the best authorities believe to be attended with grave dangers.

Whilst there is a division of opinion upon the propriety of its common use amongst men of the highest professional standing in Europe, it appears to me but seemly that we should wait for further light. Dr. Arthur will remember that I expressed my preparedness to be convinced of the value of the method.

The moral objection to the practice of hypnotic suggestion which weighs most strongly with me may be stated thus : If the hypnotic patient can be induced by suggestion to follow a virtuous course of action, he may with equal facility be induced, in the hands of unprincipled persons, to follow a vicious one. With what disastrous results this might be done in the case of females it is unnecessary for me to point out.

I am, Sir,
Yours faithfully,
P. SYDNEY JONES.
College-st., Hyde Park, Sydney,
January, 1893.

[We think that Dr. Jones' objection to the use of hypnotism by medical men in Australia is hardly supported by his suggestion—a very true one—that if a subject can be influenced for good he might also be influenced for ill by an unscrupulous operator. The people generally have read and will still read so much relating the benefits to be attained by hypnotic treatment that they will in many cases, and certainly in those which have proved obstinate under ordinary treatment, make a trial of hypnotism. It is to the public interest, therefore, that the subject should be studied, and its means for good made use of by qualified medical men. As to the division of opinion amongst authorities in Europe, a similar state of things is the rule as to nearly every other form of treatment when first introduced, in a greater or less degree, and it is no more an argument against the use of hypnotism than in any other novel process of therapeutics.—Ed. *A.M.G.*]

UNQUALIFIED PRACTITIONERS AND DEATH CERTIFICATES.

(*To the Editor of The A. M. Gazette*).

Sir,—In connection with the case which I published in your last issue, I may state that an inquiry was held and a formal verdict given that death resulted from cancer. During the inquiry some of the relatives were asked questions which only a medical man could answer; for instance, "Do you think that your mother suffered more pain when the plaster was on than she would have done had one not been applied? the reply being "I do not think so." Neither Dr. Hood nor myself were allowed to ask the witnesses any questions either through the Coroner or not; in fact, we were told to sit down, as it was his (the Coroner's) inquiry and not ours. To anyone else it seemed to be Mulqueeny's inquiry. One witness was asked about other cases Mulqueeny had and the good results obtained, no questions, of course, being asked about the cases which did not do well.

I may state that to my own personal knowledge this is the third case that has ended here in the same way after Mulqueeny's treatment, the applications always producing intense irritation.

I am, Sir, yours faithfully,
R. W. YOUNG, M.R.C.S.E.
Maclean, January 24, 1893.

Wanted trained nurse or qualified married couple to act as Wardsman and Nurse for Croydon Hospital, North Queensland. Apply by letter to J. F. Barnett, Secretary, stating salary required and enclosing references, &c., before March 6. Average number of patients daily, ten.

Medical Practice, with hospital appointment within three hours by rail from Sydney, for immediate disposal. Delightful district, fine climate. Annual income about £1,000. The vendor's present residence (16 rooms, outhouses and grounds) must be taken, rent, £150 a year. Price for goodwill and drugs, £200 cash. Furniture, &c., can be had at valuation if desired. Apply L. Bruck, Medical Agent, 13 Castlereagh-street, Sydney.

Housekeeper wishes re-engagement where servant kept. Competent, good cook, careful manager, highest references. M. H., office of the *A. M. G.*

Messrs. Burroughs, Wellcome and Co., in Melbourne, inform us that they have been appointed Australasian Agents for "Bishop's Granular Effervescing Preparations," and that they have just landed full and complete stocks of all their lines; B. W. & Co. will be glad to forward samples to anyone applying for same.

Doctor's Dispenser Disengaged, two years experience in large club practice. Highest references and testimonials. H. S. c/o Ralph Johnson, 190 William-street, Sydney.

Bowral.—Dr. Wilson has accommodation for resident patients and convalescents.

STRYCHNINE IN SNAKEBITE.

The following two telegrams appeared in the Sydney *Morning Herald* of Wednesday, February 1:—

"Gundagai, Tuesday.—An old resident of Gundagai, named James M'Duff, was bitten by a snake on Saturday afternoon. A friend applied two ligatures, and he was subsequently attended by Dr. Samuelson. The doctor injected strychnine above the ligature. The bite was about three-quarters of an inch long, blue and bruised, with two black punctures. The doctor opened the wound and treated it with ammonia, and afterwards made three more injections of strychnine, and kept the wound bleeding. M'Duff is now nearly all right, except a numbed feeling in the hand."

"Moss Vale, Tuesday.—A man named Armstrong was bitten on the hand by a brown snake. Dr. Barcroft attended him and made use of the strychnine remedy. He appears not to be suffering any ill effects from the bite."

The following paragraph from Ipswich, dated January 11, appeared in the *Queenslander* of January 14:—

"A case of snakebite occurred near Cabbagetree this afternoon, in connection with which the sufferer exhibited very plucky and prompt action. Walter Bachelor, 14 years of age, was working on the B. K. Estate, and was engaged in picking up slabs, when a large snake came from under one of the slabs and caught him by the second finger of his left hand and hung on to it. Preferring to lose part of his finger to the chance of losing his life, the young fellow at once laid his finger crosswise on a stump and chopped it half through with a tomahawk at a distance of about an inch from the point. He then bound a ligature tightly round it, the snake having meanwhile dropped off, and rode at full speed to the residence of Mrs. Harris on Denmark Hill, accomplishing the somewhat long journey in less than two hours. He was then accompanied to the hospital by Mr. George Harris. On arrival at the institution Bachelor was seen by Drs. Thornton and Robertson, and the former cut through the remaining portion of the finger. Ten minims of a solution of strychnine were then injected into the stump, and the wound was bound up. The patient was doing well this evening."

Mr. M. T. Parsons, of Mossgiel Station (N.S.W.), in a letter dated Jan. 1, 1893, addressed to Mr. Bruck, writes, "We were able to save a man's life last week by using one of your snakebite antidote cases which we got last year."

The following appeared in the Sydney daily papers of January 11:—

"Millthorpe, Tuesday.—A farmer named Whittaker, belonging to this township, was bitten by a snake on Sunday evening. He was returning home after dark, when the snake attacked him from behind, and apparently seized hold of him. The man fell in the road, and subsequently, in a great fright, made for his home, where he was much agitated, and fainted. Dr. Kendrick Vines fortunately happened to be in the town, and was attending service at the English church, whence he was summoned. On reaching Whittaker's house he applied the usual remedies for snakebite, including the hypodermic injection of strychnine, in which Dr. Vines has great confidence. The patient is now all right."

A **FULL** account of the case of Miss Dight, who died on January 31 from the bites by a tiger snake, will appear in our next issue.

THE following paragraph, dated Ipswich, January 30, appeared in *The Queenslander* of February 4 :—"Samuel Wells, an eight-year-old son of Mr. Thomas F. Wells, of Ebenezer, was bitten on the leg by a black snake on Sunday afternoon last, whilst bringing up some cows to the yard. The little fellow at once ran into the house and told his parents. Without loss of time ligatures were applied and whisky administered, and immediately afterwards a start was made for town. A short stay was made at the school-house, where a dose of ammonia was given to the sufferer. On reaching the surgery of Dr. Von. Lossberg, about an hour and a half after the infliction of the bite, the child was in a comatose state, but soon showed signs of improvement after a dose of one-twentieth of a grain of strychnine had been injected. He received similar treatment about 25 minutes later. Subsequently a solution of Condy's fluid was applied to the wound, and within two hours from the time of arriving in town all danger had passed, and the child was taken home."

(*To the Editor of The Australasian Medical Gazette.*)

DEAR SIR,—The following case, though perhaps not satisfactory in an important detail, may prove to be of interest :—

On the 28th inst., at 6.30 p.m., J. D. was bitten on the right arm by a snake. He saw the snake disappear into a hollow log. He cannot describe it. He came to me at 8.30 p.m.

Two inches above the wrist on the inner aspect of the arm was an oval bruised wound with two small black punctures. The whole wound was symmetrical and surrounded by an areola of duskiness. The hand was much congested, apparently due to a large soft ligature tightly applied just above the wound and a thin strap applied just behind the condyles of the humerus.

The patient had had no stimulant, and was very drowsy. His left pulse was slow (70 beats), weak and irregular. He was perspiring freely, and felt cold and nauseated. He was quite conscious but very collected.

I injected gr.$\frac{1}{10}$ of strychnia above the higher ligature, laid the wound open freely and deeply, and encouraged the bleeding. I further applied to it liq. ammon. fort. For a quarter-of-an-hour the patient's pulse lost in regularity and strength. I therefore gave another injection of gr.$\frac{1}{10}$, when he almost immediately brightened up and the pulse improved. In 20 minutes he was feeling worse, and I injected a similar amount. I waited half-an-hour and removed the ligatures. He was under observation till 5 a.m. and had no bad sign.

Was the snake venomous? If not, why did he not succumb to the strychnia? If it was venomous, did I get the strychnia into the circulation before the snake poison, and so make the poison act as an antidote to the strychnia?

Hereafter I shall push the drug from the very first up to a toxic effect. I feel I could more easily remedy an overdose of the antidote than of the poison.

I am, dear Sir,
Faithfully yours,
GERALD S. SAMUELSON, M.B.

Gundagai, New South Wales,
January 30, 1893.

THE MONTH.

◆

NEW SOUTH WALES.

SIR GEORGE DIBBS stated in the Legislative Assembly in answer to Mr. Lonsdale, M.L.A., that Professor Anderson Stuart received a salary of £400 as Medical Adviser to the Government, and 600 guineas as Health and Immigration Officer, or £1,030 in all for offices held by him under the Government. This, of course, is irrespective of his income derived from the University of Sydney as Professor of Physiology, amounting last year, including fees, to £1,040; Professor Stuart therefore derives a total income of £2,070 p. a. from the various offices now held by him.

THE names of E. E. A. Mahony, of Wilcannia; J. G. A. Ziehlke, of Orange, and late of Wellington; and William Henry Kelly, late of Sydney, have been removed from the roll of legally qualified medical practitioners, and their names do not appear in the new Official Register issued last month by the Medical Board of New South Wales.

THE Coroners' inquests and magisterial inquiries held in New South Wales during 1892 totalled 1,321, viz., 1,053 males and 268 females. Amongst the causes of deaths, according to the verdicts, were 178 from drowning, 28 from accidental gunshot wounds, 27 murders, manslaughter 9, suicides 134 (including 40 gunshot wounds, 29 poisoning, 23 cutting throat, 18 drowning, 20 hanging). There were also 5 deaths from sunstroke, 1 from snakebite, 35 burns, 1 from lightning, &c.

AT the Sydney Hospital during 1892, 7,716 new cases were treated by the district surgeons, representing 34,185 attendances. Supplementary to these are 378 home cases, representing 531 visits. The departmental returns show the following totals :—Department for diseases of women : New cases, 731 ; daily attendances, 5,579. Department for diseases of the skin : New cases, 85 ; daily attendances, 317. Dental department : New cases, 798. Ear, throat and nose department : New cases, 543 ; daily attendances, 2,896. Diseases of the eye department : New cases, 782 ; daily attendances, 2,556. Casualty department : New cases, 4,875 ; daily attendances, 43,872.

A HOSPITAL is now being erected at Corowa, on the Murray River, 438 miles S.W. of Sydney.

IT is intended to establish a hospital in the Tweed River District.

A SEVERE epidemic of diphtheria has been raging at Cowra during the last few weeks.

THE Nurses' Home at 133 Darlington-road, Darlington (Sydney), has now been established over 10 years, and has a resident staff of 13 trained nurses—medical, surgical and monthly—who, as will be noticed in the special advertisement in another column, are sent to all parts of the country on application to the matron, Mrs. Bundy.

DR. THOS. P. ANDERSON, a recent arrival, has settled at Kiama, he having been appointed Medical Officer of the United Friendly Societies out of 22 applicants.

DR. BARTLETT has been re-elected, almost unanimously, Medical Officer of the Cowra Hospital. He was opposed by Dr. W. R. Cortis, late of North Sydney, who got only six votes out of 43.

DR. G. DE V. BELSON has returned from his trip to England, and resumed practice at Tumberumba.

Dr. P. P. Breneman, of Elizabeth-street, Sydney, left for England by the steamer "Aberdeen" in charge of a patient.

Drs. Graham Browne and **Mitchell** have been appointed Joint Medical Officers of the Narrandera Hospital.

Dr. J. A. Caldwell, formerly of Kawakawa (N.Z.), has commenced practice at Maclean, on the Clarence River.

Dr. J. Corlis and **Mrs. Margaret Corlis, M.D.**, have removed from Fernmount, Bellinger River, to Maclean, on the Clarence River.

The Hon. Dr. J. M. Creed has taken consulting rooms at 87 Phillip-street, Sydney.

Dr. Martin Doyle, late Resident Surgeon of the Newcastle Hospital, has entered on private practice in Newcastle. He has been elected one of the Honorary Surgeons of the local hospital.

Dr. E. Florance has been elected Medical Officer of the Braidwood Hospital in the place of Dr. R. Llewellyn.

Dr. T. M. Harding has removed from Newcastle to Boggabri, 318 miles N.W. of Sydney.

Dr. Thos. Harrison, late of Brewarrina, has commenced practice at Cowper-street, Waverley, a suburb of Sydney.

Drs. John Harris and **Smith**, who were elected on the Honorary Staff of the Newcastle Hospital, have resigned their positions.

Drs. Heeley and **Finlay** have been re-elected Medical Officers of the Young Hospital.

Dr. T. J. Henry has been appointed a member of the Licensing Court for the district of Warialda.

Dr. T. R. Horton, of Balmain, has succeeded to the practice of Dr. Breneman at Elizabeth-street south, Sydney.

Dr. W. Hull, late Medical Superintendent of the Sydney Hospital, has taken charge of the practice of Dr. W. J. Russell at West Maitland, during the latter's absence in Europe.

Dr. F. W. Kane has been appointed sole Medical Attendant to the Newcastle United Friendly Societies' Dispensary, and not in conjunction with Dr. Martin Doyle, late of the Newcastle Hospital, as stated in our last issue.

Dr. T. G. Langhorne, of Castlereagh-street south, has taken over the practice of Dr. Jos. Parker, of Redfern.

Dr. R. J. Leeper, of Lithgow, has been appointed an honorary Surgeon-Lieutenant on the medical staff of the New South Wales Volunteer Force.

Dr. F. W. Marshall, late of Kempsey, has commenced practice at 269 Elizabeth-street, Hyde Park, Sydney.

Surgeon-Captain R. E. Roth, of the New South Wales Cadet Staff, who recently returned to Sydney from a visit to Europe, was entertained at supper on January 20 by the members of the Senior Cadet Ambulance Corps.

Dr. Walter E. Roth has commenced practice at Young in conjunction with Dr. Finlay.

Dr. W. J. Russell, of West Maitland, has left on a visit to the old country.

Dr. C. D. H. Rygate has removed from Walgett to Wellington.

Dr. Weber, late Professor of Electro-Therapy at the Univerity of Paris, has commenced practice at 82 Hunter-street, Sydney, as a specialist in medical electricity. Dr. Weber has brought with him from Paris 30,000frcs. worth of the latest electrical appliances.

Dr. W. Camac Wilkinson has removed from Macquarie-street, Sydney, to Ocean-street, Woollahra.

NEW ZEALAND.

The various branches of the New Zealand Medical Association have elected their office-bearers for the current year as follows :—*Auckland Branch* : President, Dr. Knight ; Vice-presidents, Drs. Lawry and Lindsay ; Treasurer, Dr. Girdler ; Hon. Secretary, Dr. Robertson. *Canterbury Branch* : President, Dr. Jas. Irving ; Vice-presidents, Drs. Meadows and B. M. Moorhouse ; Hon. Treasurer, Dr. E. Jennings ; Hon. Secretary, Dr. J. H. Murray-Aynsley ; Members of Committee, Drs. Thomas and J. H. Deamer. *Otago Branch* : President, Dr. Roberts ; Vice-presidents, Drs. Macpherson and Cunninghame ; Hon. Secretary and Treasurer, Dr. Closs ; Library Committee, Drs. Colquhoun, Barnett, Jeffcoat and Mullen ; Standing Committee, Drs. Teevan, Davies and Fulton.

This year's annual meeting of the New Zealand Medical Association will take place at Auckland on March 6 and following days. Intending visitors from Australia should communicate with the Hon. Secretary, Dr. Robertson, Symond-street, Auckland.

Dr. Batchelor and **Dr. Lindo Ferguson** have returned to Dunedin from the old country.

Dr. F. W. Coates, a recent arrival, has settled at Hutt, a suburb of Wellington.

Dr. R. H. Hogg has been appointed Senior House Surgeon of the Dunedin Hospital.

Dr. F. J. Nicoll, late of Lawrence, has been elected Medical Officer to the Arrowtown Hospital in the place of Dr. Donaldson, resigned. Dr. Nicoll was the only candidate for the post.

Dr. John Somerville has commenced practice at Waihola, 26 miles from Dunedin.

QUEENSLAND.

The sixth annual meeting of the Medical Society of Queensland was held on January 10 in the Courier Building, Brisbane. There was a large attendance of members, the chair being occupied by the President (Dr. Gibson). The following gentlemen were elected office-bearers of the Society for the ensuing year :—President, Dr. Hardie ; Vice-presidents, Dr. Gibson (retiring President) and Dr. Peter Bancroft ; Hon. Secretary, Dr. Love ; Hon. Treasurer, Dr. Thomson ; Council, Drs. Turner, Clowes and Wheeler ; Auditors, Drs. Booth and Little.

The professional division of list of officers employed in the Queensland Civil Service, just issued, contains the names of five medical men, viz., Dr. C. J. H. Wray, Health Officer of Brisbane, with a salary of £700 ; Dr. R. B. Scholes, with £800 as Medical Superintendent, and £100 as Inspector of Hospitals for the Insane, and £120 allowances for quarters, fuel and light, or £1,020 in all ; Dr. J. B. Hogg, Medical Superintendent of Toowoomba Hospital for the Insane, with £600 and £100 allowances ; Dr. P. Smith, Medical Superintendent at Dunwich, with £600 and £136 allowances ; and Dr. J. R. Nicoll, Assistant Medical Superintendent of the Hospitals for the Insane at Goodna and Ipswich, with £400 and £75 allowances.

Dr. C. L. W. Hunt has removed from Toowoomba to Warwick.

Dr. W. Kirkaldy, of Charleville, has been appointed a Surgeon on the medical staff of the Queensland Defence Force.

Dr. C. H. E. Lawes, late Medical Officer of the Goodooga (N.S.W.) Hospital, has been appointed Resident Surgeon to the Hospital for Sick Children, Brisbane.

Dr. K. I. O'Doherty, of Brisbane, has been appointed Honorary Medical Officer to the Prevention of Cruelty Society.

Dr. F. Paoli has left Charters Towers for Italy, his native land, where he purposes spending the remainder of his days.

Dr. Arthur Vores, formerly of Macquarie-street, Sydney, is now practising at Charters Towers.

SOUTH AUSTRALIA.

Dr. John Davies Thomas, L.S.A. Lond. 1866, M. 1867, F. 1870, R.C.S. Eng., M.B. 1869, M.D. 1871 Lond., L.R.C.P. Lond. 1869, formerly one of the leading physicians in Adelaide, who was stricken with paralysis of the brain two years ago, died on January 30, at the age of 48 years. After holding the positions of Resident Clinical Assistant at the Brompton Hospital for Consumptives, and of Resident Medical Officer at the University College Hospital in London, he came to Australia in 1875, and after a few months' residence in Victoria he was appointed Senior House Surgeon at the Adelaide Hospital. He subsequently went into private practice, and at one time was lecturer at the University. Dr. Thomas was an authority in Australia on hydatids, a subject which absorbed all the attention which he could possibly give to it.

We regret to have to record the death of the wife of Dr. L. W. Bickle, of Mount Barker, who died from laryngeal phthisis on the 26th December last at the early age of 28 years. The deceased lady had endeared herself to a large number of the townspeople by her kindly and benevolent disposition. She was a true friend of the poor, and in a quiet unassuming way won the affectionate regard of everyone who knew her.

Drs. Cavenagh-Mainwaring, Gibbes and Harbison have been elected Resident Medical Officers of the Adelaide Hospital.

Dr. F. J. Elliot, a member of the last Elder Exploring Expedition, has settled at Morphett Vale.

Dr. A. F. G. Engelhart, late of Mount Pleasant, is now practising at Kingston, on the shores of Lacepede Bay, 293 miles S.E. of Adelaide.

Dr. W. J. Gregerson has commenced practice at Port Wakefield.

Dr. H. K. Heymann has commenced practice at Tanunda.

Dr. C. S. Mead, late House Surgeon at the Adelaide Hospital, has left for England to further pursue medical studies with the view of fitting himself for the position of a medical missionary in the Fureedpore Mission, a little to the north of Calcutta.

Dr. M. J. Symons, of Adelaide, has left for Scotland on a lengthy trip.

Dr. J. T. Toll, of Port Adelaide, intends leaving for Europe early in March. He will be away six or eight months.

TASMANIA.

Dr. E. O. Giblin, of Hobart, has been installed as Grand Master of the Grand Lodge of Tasmania.

VICTORIA.

The annual meeting of the Medical Society of Victoria was held in the hall, Albert-street, East Melbourne, on Wednesday evening, January 11, when the retiring President, Professor Dr. Allen, delivered the annual address. The following gentlemen were elected office-bearers for the ensuing year:—President, Mr. C. S. Ryan; Vice-presidents, Drs. Adam and Gresswell; Hon. Secretary, Dr. W. Moore; Hon. Librarian, Mr. J. H. Webb; Hon. Treasurer, Dr. Brett; Hon. Auditors, Drs. Barker and Bennie; Committee, Drs. Allen, Balls-Headley, J. W. Barrett, F. D. Bird, Girdlestone, Grant, Jamieson, Maudsley, J. P. Ryan and Williams.

The following have been elected members of the Council of the Victorian Branch of the British Medical Association for the current year:—President, Dr. Gresswell; Vice-president, Dr. Meyer; Hon. Treasurer, Mr. A. L. Kenny; Hon. Secretary, Dr. Mullen; Members of the Council, Drs. Springthorpe, Neild, Shields, Molloy, Henry and M'Adam.

Three hundred and twenty-five inquests were held in Melbourne and suburbs during 1892, against 340 for the preceding year. Last year there were 39 suicides, 55 were found dead or drowned, the majority of which no doubt were suicides. There were 28 cases of infanticide without any arrest being made in connection therewith. 131 deaths were due to accidents; there was only one murder, one execution, and two cases of manslaughter. Of the 325 deaths, 102 were due to drink.

We regret to have to record the death of Mr. William Robert Allen, L. et L. Mid., R.C.S. et R.C.P. Edin. 1882, who died at his residence at Kingston on the 30th December last.

Mr. Thomas Embling, M.R.C.S. Eng. 1837, L.S.A. Lond. 1838, died at Hawthorn, Melbourne, on the 17th January, at the ripe old age of 79 years. He arrived in Victoria from Adelaide in 1850. In 1855 he was elected to the Legislative Council for North Bourke. He was elected to represent Collingwood in the Assembly in 1856, and represented that constituency till 1861. In 1866 he was again elected, retiring in 1867, since which time he had lived privately. He leaves a widow and two sons, both of whom are surgeons, one being member for the North-eastern Province in the Legislative Council.

Dr. James Robertson, M.A. Aberd., M.D. King's Coll. Aberd., L.R.C.S. Ed. 1847, died at his residence at Toorak, Melbourne, on Saturday, January 21, from bronchitis and exhaustion, following upon a long illness, at the age of 71. He arrived in Victoria in 1854, and commenced practice in Melbourne. He took a great interest in founding the medical school at the University of Melbourne, and was appointed first lecturer in the theory and practice of medicine, which office he held for 17 years. He subsequently became a member of the University Council. He was a member of the former Central Board of Health, and also a prominent member of the Medical Society of Victoria from its foundation, and was at one time its president. His last public appearance was at the Intercolonial Medical Congress in Sydney, as President of the Section of Medicine.

Dr. J. W. Barrett has been appointed honorary surgeon to the Victorian Eye and Ear Hospital in place of Dr. Bowen, resigned, and Dr. Percy S. Webster has been elected honorary assistant surgeon to the same institution.

DR. J. I. FULLARTON has removed from Yarrawonga to Flemington, near Melbourne.

AT the suggestion of the Honorary Medical Staff of the Castlemaine Hospital, the Committee of the institution have informed Dr. Hutton, the Resident Surgeon, that he is not to engage in private practice.

DR. G. A. MACNUTT has left Daylesford and resumed practice at 24 Collins-street, Melbourne.

DR. G. SOILLEUX, lately returned from England, is now practising at Camberwell.

DR. J. R. WOLFE, late of Glasgow, has established a clinic for diseases and injuries of the eye at 484 Albert-street, East Melbourne.

WESTERN AUSTRALIA.

DR. H. C. BARNETT, Colonial Surgeon at Fremantle, has returned from his trip to England.

DR. J. A. O'MEEHAN has been appointed Medical Officer of Health at York.

DR. H. C. BARNETT, of Fremantle, has been appointed a member of the Western Australian Medical Board, vice Dr. J. W. Hope, resigned.

MEDICAL APPOINTMENTS.

Forrest, James Alexander, M.B. *et* Ch.M. Ed., to be Government Medical Officer at Charters Towers, in the place of Dr. F. Paoli, resigned.

Dutton, William Henry, M.B. *et* Ch.M. Ed., M.R.C.S.E., to be Public Vaccinator for Frankston, Vic.

Heymann, Herman Carl, M.D. Berl., to be Public Vaccinator at Tanunda, S.A.

Norris, William Perrin, M.D. Melb., to be Public Vaccinator at Lilydale, Vic.

BIRTHS, MARRIAGES, AND DEATHS.

⁂ The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BURTON.—On 21st January, at Richmond, Melbourne, the wife of W. H. Burton, M.D., of a daughter.

CAMPBELL.—On the 14th January, at Adelaide, the wife of Dr. W. M. Campbell, of twins.

HARDIE.—On the 18th January, at Brisbane, the wife of David Hardie, M.D., of a daughter.

MACGIBBON.—On the 27th December, at Fitzroy, Melbourne, the wife of Walter Macgibbon, M.D., of a son.

MAHER.—January 28, at Ashfield, Sydney, the wife of W. Odillo Maher, M.D., of a son.

MOORE.—January 16, at Waverley, Sydney, the wife of Dr. A. M. Moore, of a daughter.

RENDLE.—On the 30th December, at Indooroopilly, Q., the wife of Dr. Rendle, of a son.

STURDIE.—On the 24th inst., at Bendigo, Vic., the wife of A. Hobart Sturdie, M.R.C.S. Eng., of a daughter.

STURT.—February 5, at Wistaria, Bulli, N.S.W., the wife of Dr. Clifton Sturt. J.P., of a son.

MARRIAGE.

ANDERSON—NEILSON.—On the 4th January, at the Presbyterian Church, Newmarket, Melbourne, Thomas Cochrane Anderson, M.B., C.M., to Christina, daughter of William Neilson, Newmarket.

DEATH.

LITTLE.—On the 22nd January, Hermione, third daughter of Dr. Joseph H. Little, of Brisbane, aged 6½ years.

Two or three ladies or gentlemen desiring change of air can have superior accommodation and special attention. "Avondale," Victoria Parade, Manly.

SNAKEBITE ANTIDOTE POCKET CASES

(*Made of strong polished metal, lined with silk velvet*)

For Dr. Mueller's successful treatment of Snakebite by the hypodermic injection of strychnine, containing *patent poison sucker*, best hypodermic syringe, two hypodermic needles, glass mortar and pestle, two tubes of strychnine tabloids, which will keep for years, and *full directions for use.*

Price, complete—£1, postage paid to all parts of Australia.

TO MEDICAL MEN 16s. 6d., postage paid.

L. BRUCK, 13 Castlereagh Street, Sydney.

NEW MEDICAL BOOKS.*

Diseases of the Nervous System. By Jerome K. Bauduy, M.D., LL.D. 2nd ed. 14s.

The Diagnosis of Diseases of the Nervous System: A Manual for Students and Practitioners. By Christian A. Herter, M.D. 12s. 6d.

Anæsthetics: Their Uses and Administration. By Dudley W. Buxton, M.D., B.S. 2nd ed. 5s.

Manual of Venereal Diseases: Being an Epitome of the most Approved Treatment. By E. M. Culver, M.D., and James R. Hayden, M.D. Illus. 7s. 6d.

Diseases of the Urinary Apparatus (*Phlegmasic Affections*). By John W. S. Gouley, M.D. 7s. 6d.

Bright's Disease of the Kidneys: Its Pathology, Diagnosis and Treatment. With chapters on the Anatomy of the Kidney, Albuminuria and the Urinary Secretion. By Henry B. Millard, M.A., M.D. With numerous illus., 3rd ed., revised and enlarged. 12s. 6d.

The Diseases of the Stomach. By Dr. C. A. Ewald. Authorised translation from the second German edition with special additions by the author. By Morris Manges, A.M., M.D. With 30 illus. 16s.

Practical Sanitation: A Handbook for Sanitary Inspectors and others interested in Sanitation. By George Reid, M.D., D.P.H. With an appendix on Sanitary Law, by Herbert Mauley, M.A. Cantab., M.B., D.P.H. illus. 6s.

Hygiene and Public Health. Edited by Thomas Stevenson, M.D., F.R.C.P. Lond., and Shirley F. Murphy. Vol. i., illus. 28s.

Textbook of the Embryology of Man and Mammals, with 339 figures in the text and two lithographic plates. By Dr. Oscar Hertwig. Translated from the third German edition by E. L. Mark, Ph.D., Hersey Professor of Anatomy in Harvard University. 21s.

Materia Medica and Therapeutics. By John B. Biddle, M.D., late Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia. 12th ed., revised, rearranged, and enlarged by Clement Biddle, M.D., with illustrations. 18s.

Kirke's Handbook of Physiology. 13th ed., with upwards of 500 illustrations, including some coloured plates. 14s.

Histology: Descriptive and Practical, for the use of Students. By E. A. Schäfer, F.R.S. 3rd. ed., revised and enlarged. Illustrated by more than 300 figures, 7s. 6d.

---

* All these books are stocked by L. Bruck, 13 Castlereagh-street, Sydney, the only medical bookseller in these colonies.

REPORTED MORTALITY FOR THE MONTH OF DECEMBER, 1892.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	238	151	67	...	1	2	3	5	19	13	6	9	6	2	...
Suburbs	275,615	871	418	240	1	5	5	4	3	52	23	33	22	17	...	1
NEW ZEALAND.																
Auckland	28,613	47	30	15	...	...	...	...	2	6	1	3	2	3	...	...
Christchurch	16,223	24	11	4	...	...	...	2	...	...	...	...	1	1	...	...
Dunedin	22,376	46	23	10	...	...	...	3	...	2	2	2	1	...	...	...
Wellington	31,021	65	27	12	...	...	...	1	...	2	2	2	3	...	...	...
QUEENSLAND.																
Brisbane	56,075	153	77	33	...	..	1	...	...	12	8	7	4	4	...	...
Suburbs	37,582	104	46	33												
SOUTH AUSTRALIA	329,903	815	296	112	...	...	9	3	3	22	32	21	22	15	...	2
Adelaide	38,240	89	58	24	...	...	...	...	1	2	10	4	1	4	...	1
TASMANIA.																
Hobart	34,739	85	60	16	...	...	3	...	1	4	1	2	3	2	...	...
Launceston	22,363	58	25	9	...	...	...	...	...	3	2	...	3	2	...	...
Country Districts	97,956	280	76	...	...	...	1	1	2	4	7	...	...	...	...	...
VICTORIA.																
Melbourne	71,881	101	84	357	...	1	3	4	4	86	65	54	45	30	...	3
Suburbs	417,304	1,165	652													
WESTERN AUSTRALIA*	58,674	578	249	81	...	...	5	2	6	18	16	23	20	5	..	

* For the quarter ending December 31, 1892.

◆

METEOROLOGICAL OBSERVATIONS FOR DECEMBER, 1892.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. ; Long. 138° 36′ E.	...	97·5	68·2	49·7	29·806	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	78·	63·1	52·	...	2·020	15	79	...
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	99·5	75·8	61·1	29·851	7·269	11	76	S.
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	84·	60·6	39·2	...	2·005	10	61	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	73·	56·	41·	...	5·678	21	75	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	...	...	...	...	...	...	...	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	...	...	...	...	...	...	...	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	92·5	61·1	45·9	29·781	1·45	9	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	103·	65·	50·	30·014	1·54	17	64	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	89·1	68·3	54·5	29·895	6·75	16	71	S.E.
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° [illegible]′ 25″ E.	...	74·1	60·8	45·	...	4·363	11	67	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

RECENT WORK ON THE PATHOLOGY OF CANCER.

READ BEFORE THE MEDICAL SECTION OF THE ROYAL SOCIETY OF N.S.W.

BY G. E. RENNIE, M.D. LOND., M.R.C.S.E., PATHOLOGIST TO PRINCE ALFRED HOSPITAL, SYDNEY.

IN most text-books on pathology we find a group of pathological processes, including tubercle, syphilis, lupus, &c., separated from the group of benign and malignant tumours, and called infective granulomata or infectious tumours. The grounds for this classification are, it is asserted, as follows :—(1) That the infective granulomata are all due to recognized micro-organisms ; (2) that they are all essentially of the nature of chronic inflammation with tendency to formation of new tissue ; (3) that they are all distinctly infective and contagious.

All pathologists, however, are by no means agreed that these points of distinction are valid. Virchow, *e.g.*, includes the infective granulomata under the group of tumours. For some years the opinion has been held, and has lately been gaining ground, that cancer is also a true infective disease, depending upon a micro-organism, and we shall see that it presents certain points of resemblance with, as well as certain differences from, a well-recognized infective process such as tubercle. Both cancer and tubercle are certainly hereditary diseases, and in some cases appear to depend on constitutional predisposition. Leaving aside, however, the question of heredity, both cancer and tubercle are essentially, at first, local diseases. They begin locally and gradually spread from the primary focus to the tissues around it; then secondarily, invading the adjacent lymphatic glands and subsequently extending to more distant parts, give rise to the formation of metastatic deposits. In each case, if the primary focus of disease be accessible, and be removed at an early stage, we may have complete cure ; but often by the time the primary growth has attained sufficient size to be recognized, secondary infection has taken place. When the tubercle bacillus is lodged in any tissue its first effect is to excite germinative or proliferative changes in the fixed cells of the tissue, *i.e.*, proliferation of the connective tissue cells and of the endothelium of the blood vessels and lymphatics ; and this takes place independently both of active congestion and of emigration of leucocytes. These newly-formed cells are at first small and round, but subsequently increase in size, and then from their large size and large prominent nuclei are spoken of as epithelioid ; and from one of these the giant cell is probably derived. At a later stage we find around such a mass of newly-formed epithelioid cells a zone of small round cells resembling leucocytes, and in all probability derived by migration from the neighbouring blood vessels. We thus have a tubercle nodule—a grey granulation—formed, and at an early period we find caseous degeneration taking place, ending in destruction of the cells first of all in the centre of the nodule, and extending to those at the periphery.

While these degenerative changes are taking place in the centre of the nodule (as a result in all probability of the action of the specific products of growth of the bacilli), we may have developments of new nodules at the periphery ; and this process may go on till, as sometimes happens, *e.g.*, in the brain, we get a moderate-sized tumour consisting of caseous material. Then there may be cessation in the activity of the bacilli ; the caseous mass becomes surrounded by a capsule of fibrous tissue, and this may take place without any deposit of tubercle in other parts of the body. Frequently, however, secondary deposits take place at a comparatively early period. These metastases are produced by the bacilli being carried off by the blood vessels or lymphatics, either free in the blood or lymph stream, or conveyed in small fragments of caseous material detached from the primary focus. The bacilli being thus carried to lymphatic glands or more distant parts, then excite precisely the same changes in the tissue where they are localized. The caseous fragment in which they may be conveyed can, of course, take no part in the development of the secondary growth. The first change observed at the site of development of a cancer is an overgrowth of epithelium, either squamous or glandular, according to the situation of the disease. This does not consist in a mere hypertrophy of epithelium such as we find in a simple papilloma or wart, but the epithelium is seen to leave its normal situation and penetrate into the deeper tissues. In the case of a squamous epithelioma the epithelial cells are seen forming branching columns, which follow the course of the lymphatic spaces, as Waldeyer has demonstrated the presence of a layer of lymphatic endothelium at the margin of the advancing columns of epithelial cells.

We find, further, in the immediate neighbourhood of these columns, a number of small round cells derived by proliferation of the fixed connective tissue corpuscles. These small round cells subsequently become converted into the fibrous tissue composing the stroma of the cancer. The formation of metastases depends on the detachment of cells from the primary tumour; one or more epithelial cells are swept away by the lymph stream and carried to the adjacentlymphatic glands, and there determine the development of secondary growth; but the exact manner in which this is effected is a matter of dispute. In a lymphatic gland we have normally no epithelial cells, and hence a secondary deposit of cancer in such a gland can only arise in one of two ways: either the epithelial cells derived from the primary growth, being endowed with the same proliferative power characteristic of epithelial cells in cancerous growths, begin to multiply in their new situation, and all the epithelial cells in the secondary deposits are the direct descendants of these "germ" cells, or the detached epithelial cells exert upon the lymphoid and connective tissue cells in the lymphatic gland a spermatic influence, as a result of which they become transformed into cells of the epithelial type. It would be rash in the present state of our knowledge to offer any direct denial to the possibility of this latter event, though from a study of all that is known at present of the laws of development it seems highly improbable that cells derived from one layer of the blastoderm can be transformed so as to take on the type of those derived from another layer. There is not sufficient evidence at present of the possibility of secondary deposits in cancer being produced merely by the so-called cancer juice in the absence of cancerous epithelial cells. We see then that while the location of the tubercle bacillus in any tissue is followed by a series of changes of the nature of chronic inflammation with formation of new tissue, in which we have proliferation of all the fixed elements of the tissue, giving rise to the formation of the tubercular nodule, which easily undergoes caseous degeneration, and which advances only by the formation of new nodules at the periphery, which gradually become absorbed into the main mass of the caseous tumour; in cancer, on the other hand, we have proliferative changes excited primarily in one special type of tissue, viz., epithelial, which result in the epithelium invading other structures and occupying an abnormal situation in the part affected, and which, as it advances, successfully overcomes all resistance and knows no limitations; which further exerts a certain amount of irritation in the surrounding tissues, leading to proliferation of the fixed connective tissue cells and formation of new fibrous tissue, which constitutes the stroma of the new growth.

In these particulars I think we have some important points of distinction between tubercle (and I take tubercle as a type of a true infective process) and cancer; nevertheless, clinically, the two diseases present certain points of resemblance (which I cannot particularize now) which tend to support the view that cancer is also a parasitic disease. It is no wonder that within the last few years many attempts have been made to discover an organism, either animal or vegetable, characteristic of cancer; and in reviewing the work done within the last five years on the pathology of cancer, I shall direct your attention more particularly to this aspect of the question. It is hardly necessary to remind you that the mere presence of an organism of any kind in cancer is no proof of a causal connection between the two. In all varieties of cancer, more especially when ulceration has taken place, we are apt to meet with various forms of organisms, merely as accidental contaminations. To prove that a particular micro-organism is the cause of a disease, the four rules laid down by Koch must be recognized, viz., (1) The organism must be found always associated with the disease. (2) It must be separated from the diseased tissues in pure culture. (3) It must be injected into susceptible animals and reproduce the disease. (4) It must be again obtained from this experimentally produced disease. But this chain of evidence has not yet been completed in the case of several diseases, as of leprosy, typhoid, &c., which are nevertheless almost universally acknowledged to depend on bacilli; and so the failure to satisfy all the above conditions could not be urged at present as a fatal objection to an organism assigned as the cause of cancer, provided it fulfilled some, at any rate, of these cenditions.

Within the last five years three distinct varieties of organisms have been described as the cause of cancer, (1) Bacilli, (2) Protozoa, (3) a Fungus belonging to the group of sprosspilze or sprouting fungi.

Bacteriological Investigations.—In May, 1887, Ballance and and Shattock communicated to the Pathological Society of London results of cultivation experiments made with new growths. The authors were convinced that the essential pathology of new growths must be similar to that of the specific diseases. Pieces of cancer of the breast removed immediately after operation were transferred to tubes of solidified blood serum, agar agar, and Koch's beef peptone gelatine, and incubated at 100°F. for various periods, in one case for 33 days, but all the tubes remained sterile. They concluded from these experiments that the parasite of cancer must be unlike in its life history those already known, in that it does not admit of cultivation in any of the ordinary media.

These negative results were followed by the announcement in November, 1887, of the discovery of a specific bacillus in cancer by Dr. Scheuerlen, of the Charité Hospital, Berlin. The material employed consisted of pieces of cancer of the breast removed at operation, and of some *post-mortem* specimens of cancer of the breast, uterus, liver, &c. The pieces of the growth were washed in sublimate solution and the cancer juice scraped off the freshly cut surface by means of a sterilized knife. The culture media consisted of pleuritic serous fluid, agar agar, gelatine and potato, which were inoculated in the usual way. The bacterial growth was very rapid, forming colourless films on surface of the media, the films gradually assuming a brownish yellow colour. They were found to consist of bacilli 1·5-2·5m. long by ·5m. wide, long ovoid, spore-bearing, moving like the weight of a pendulum round a centre. On staining with various re-agents no bacilli were found in sections of the tumours, but in cover-glass preparations of the juice they were found, some of them within the cells. Inoculation of pure cultures of this bacillus were made in the mammary glands of six bitches. At the site of inoculation swellings formed, which increased to the size of a walnut and then shrank to the size of a hazel nut or bean. The swellings consisted of granulation tissue and epithelioid cells, and by microscopic examination and culture experiments the bacilli were proved to be present. He concluded from these experiments, (1) There exists always in cancerous tumours a bacillus which can be isolated. (2) The spores of this bacillus are met with in all microscopical preparations of cancerous tissues. (3) Inoculations upon animals with pure cultures of this bacillus always give rise to the formation of cancerous tumours. (4) There is consequently a causal relation between this bacillus and cancer.

At the meeting at which Scheuerlen announced this result, Fränkel adversely criticized his conclusions, pointing out that the very rapid growth of the bacilli was against their pathogenic character, and that degenerate cells formed a favourable nidus for bacterial contamination.

The announcement of Scheuerlen's discovery naturally attracted considerable attention, and formed the starting point of numerous investigations by different pathologists. Professor Freire, of Rio Janeiro, claimed the priority in the discovery of the cancer bacillus.

Lampiasi Rubino announced that he had been able to find constantly in all malignant tumours a bacterium closely resembling Scheuerlen's bacillus.

Franki stated that he could demonstrate Scheuerlen's bacillus in the blood of patients suffering from carcinoma and sarcoma.

Schiel, of Dresden, announced the discovery of rod-shaped microbes in carcinoma and sarcoma. Very shortly after, however, subsequent researches failed to support Scheuerlen's conclusions. Besides the negative results obtained, as already mentioned by Ballance and Shattock, further researches by Senger, Verf, Rosenthal, Pfeiffer, Van Ermengem, Makara and others, all tended to the same conclusion, viz., that Scheúerlen's bacillus had nothing whatever to do with the etiology of carcinoma, that it was in reality only a casually-occurring harmless saprophyte.

Verneuil, from the experience of the frequent septic infection of operation wounds after removal of tumours, when the contents of foci of softening were allowed to flow over the surface of a wound, was lead to search for bacteria in these softened areas, with the result that he found various kinds of bacilli and micrococci, and often several species in the same tumour. He believed that these organisms could hasten the growth of the tumour by exciting cell proliferation, and could cause the softening and ulceration in it, but he did not regard them as being the primary cause of the original growth.

Zahn ("Virch. Archiv.," 1889) proved by a series of culture experiments that micro-organisms were present in metastatic deposits of cancer in internal organs, even when there was no direct communication with the outer surface of the body.

Hauser, in his work (1890), states that it is only natural to expect to find micro-organisms in ulcerated cancerous growths, since the increased nutrition of the tissues associated with the development of the tumour would be highly favourable to the growth of organisms; and that where these are found in metastatic deposits they would be carried there along with the elements of the tumour detached from the primary focus. In the chapter in his work upon the etiology of cancer he argues that the infective theory is opposed to all that is known of the histogenesis of cancer.

Schutz, by means of various aniline dyes, detected various forms of bacteria in cancer of the lip, but did not regard them as having any etiological connection with the growth, since he says that the structure and development of cancerous tissue is so very different from that of the infectious granulomatous tumours well known to us to have a bacillary origin.

In 1890, however, another announcement of the discovery of the specific cancer bacillus was made by Kubasoff. In various carcinoma, especially of the stomach, he found short thick bacilli 1·5m. or 2m. by 1m. broad, showing active movement when incubated at a temperature of 30-36° C.

In various culture media, such as gelatine, agar agar, etc., they formed scale-like colonies, which did not liquify gelatine. Guinea-pigs, rabbits, cats and dogs were inoculated with pure cultures, and the animals died in from one week to two months. *Post-mortem* examination revealed the presence in various organs, specially in the peritoneum, pericardium, stomach, liver, etc., of nodules the size of a cherry, and of a greyish or greyish-green colour, all of which, according to Kubasoff, presented the structure of carcinoma. He believed that in his bacillus he had found the true cause of cancer, since he had fulfilled all the conditions required for proof of causal connection between an organism and a disease. Kubasoff, however, found few supporters, since apart from the fact that the animals inoculated did not run the ordinary clinical course of cancerous patients, complete verification of the nodules being true carcinomatous growth was not forthcoming.

Since then, so far as I have been able to ascertain, no one has adduced any evidence in support of any specific bacterium as a cause of cancer, and in view of the negative results obtained by so many competent observers, it seems improbable that any such bacterium exists.

(To be continued.)

CASE OF OVARIOTOMY.

BY ÆNEAS J. MCDONNELL, M.B. ET CH.M., HONORARY SURGEON TOOWOOMBA HOSPITAL, QUEENSLAND.

◆

NOVEMBER 7, 1892, E. A., *æt.* 25, single, consulted me for a "swelling in her stomach." History was that 18 months before she had had a fall from a horse, and after that noticed that her stomach was swollen, the swelling appearing just below the navel and slowly increasing in size. Had no pain; did not see a doctor. Again four weeks before had been thrown from horse; hurt her side severely; saw medical man, who told her she had a tumour. This grew, or seemed to grow, more rapidly, so she came to Toowoomba and consulted me.

Present Condition.—Healthly-looking brunette; swelling of abdomen very noticeable. An evenly-rounded swelling is to be seen. On percussion dull note all over in front, resonant in flanks; on palpation creaking felt above umbilicus and down the sides; percussion wave plainly felt.

Per Vaginam.—Uterus virginal. Sound shows it to be free. On right side roof of vagina pushed down, and on percussing above, the finger in vagina feels wave of fluid; breasts normal; no sickness; menstruation normal; bowels regular. Girth round umbilicus 33 inches, and measurement from xiphoid cartilage to pubes 15½ inches.

Diagnosis.—Ovarian or parovian tumour. Sent to hospital, where I obtained special ward and nurse.

After consultation with the rest of the staff, operated on November 15. In the morning patient had a bath with carbolic lotion, and carbolic was also used for the sponges. For anæsthesia, A.C.E. mixture was first used, but not acting well, chloroform was used.

Incision of about three inches made between pubes and umbilicus. On opening the peritoneum the smooth shiny wall of the cyst came into view, which was seized with cyst forceps and tapped with an Emmett's trocar. There being several cysts, the trocar was pushed on into them without making fresh opening from outside. When empty the hand was passed round; cyst was ovarian; no adhesions; pedicle about two fingers thick and about two-and-a-half inches long. The Fallopian tube was much enlarged.

A clamp was placed on the pedicle and the cyst removed. Then the pedicle was transfixed with silk and tied in Lawson Tait's Staffordshire knot twice for safety, and the end of pedicle with clamp cut off and stump allowed to drop back into abdômen. The second ovary was normal.

Toilet was carefully attended to; boiled water at temperature of 105°F. poured from jug into cavity of peritoneum till it was brought back by sponges perfectly clean. Sponges also passed well down into the flanks and Douglas' pouch. Deep and superficial sutures used in the wound; no drainage tube employed.

Of after history I have little to say. Practically no vomiting; any slight pain controlled by suppos. of morph.

On sixth day bowels open with haust. mag. sulph., and after this she had a sharp attack of urticaria. There was slight vesical irritation, relieved by washing out bladder with sol. of acid boracic. In four weeks she was discharged and left for her home.

January 26th, 1893, she writes to say she is in the best of health.

Remarks.—Although this town is over 30 years old and the centre of a large district, this is the first ovariotomy that has been done here. Reports of ovariotomies from country districts are rather rare as a rule. The total weight of cyst and contents was 14½ lb. It was a multilocular cyst, one of the cysts being seven-eighths of the whole. The fluid was ropy and yellowish. No microscopical examination was made.

CASE OF INTESTINAL OBSTRUCTION CAUSED BY BANANAS—RECOVERY.

By A. K. Hoets, M.R.C.S. Eng.

◆

Saw patient, A. M., on morning of December 24. States that two days previously had eaten two bananas and shortly afterwards had drank a couple of glasses of whisky. The following day after dinner, in the middle of the day, complained of pains in the abdomen; these continued during the night; had taken a dose of castor oil, which, however did not operate.

Present condition.—Pain in lower part of abdomen; tenderness on pressure; no distension; temperature normal; pulse regular. Gave patient an enema of soap and water, which brought away a few scybalæ. Patient vomited for the first time. Ordered calomel gr.6 and a mixture containing tr. opii. ♏vii. to a dose, every four hours.

December 25.—Sent for early in a great hurry to see patient. On arrival found that he had passed a bad night, in great pain and constantly vomiting. Patient is quite collapsed, face pinched, pulse feeble; tenderness over lower part of abdomen, which is distended; no flatus or motion passed since last visit; unable to keep anything down for more than a few minutes; vomit decidedly stercoraceous. Gave patient morphia gr.½ hypodermically, after which the vomiting ceased for three hours. Ordered iced water and brandy and hypodermic injections of morphia gr.¼ every four hours; hot fomentations to abdomen. 6 p.m.—Patient feels better; no flatus passed; still vomits, but at longer intervals; to have an enema of soap and water twice in 24 hours.

December 27.—Patient's condition is much the same since last note; vomiting less severe; abdomen very much distended; complains of great tenderness in lower portion of left lumbar region, where an indistinct lump may be felt. There has been no return of the stercoraceous vomiting. The enema this morning brought away a little liquid fæcal matter, but no flatus passed; abdomen very tense, and patient troubled a good deal with hiccough; still has morphia, but at longer intervals.

December 29.—This morning, after a large soap and water enema, patient passed an enormous stool, with a great deal of flatus. The stool contained a mass of partially-digested bananas.

After this, patient made an uninterrupted recovery.

This is the first case of intestinal obstruction caused by bananas that has come under my notice, but it is the common belief in this district that it is very dangerous to drink spirits immediately after eating this fruit. Whether this is correct or not I am unable to say, but certainly the above case seems to prove there is some ground for this belief.

Brushgrove, Clarence River,
February, 1893.

CASE OF STRYCHNINE POISONING—DEATH ENSUING UNUSUALLY LONG AFTER ONSET OF SYMPTOMS.

By T. J. Henry, L.R.C.P. et R.C.S. Ed., L.F.P.S. Glas., Medical Officer Warialda Hospital, New South Wales.

◆

At 9.35 a.m. on the 27th January I was called by the police to see T. R., a man aged 46, stated to have "taken strychnine to do away with himself."

He lived close by, and within five minutes I was at the man's hut. I found the patient (a very robust and splendidly-developed person) lying on the floor in convulsions, most marked then about the lower half of the body. He stated that he had about three-quarters-of-an-hour before taken "about as much strychnine as would lie on a shilling"—a dose, probably, of 7 to 10 grains. He had poured it dry on his palm, then tossed it into his mouth, and washed it down with water. To more rapidly produce an effect he had refrained from taking breakfast. He had made his wife watch the act, and then ordered her, by threats, to wait by until symptoms began. He then sent her to a friend with a letter detailing his intention. This was given to the police about 9.15. As soon as possible I injected 40 grains of chloral and a drachm of bromide *per rectum.* Then, after a little difficulty (caused by his voluntary resistance, for the jaws were not then affected) and thorough gagging, I got the pump to work. There was absolutely no food present. I washed out the stomach about a dozen times until I judged it to have been perfectly emptied of any of the alkaloid that remained unabsorbed. Soon after this the paroxysms became infrequent—one short attack about every 20 minutes or half-hour. About 11 they increased in violence, and occurred about every 10 minutes. Each one lasted from 10 to 20 seconds and left him exhausted. About 11.15 a very severe and prolonged paroxysm occurred. He became perfectly livid, and was within an ace of suffocation. I then gave him more chloral and bromide, and a few whiffs of chloroform. Shortly after this he fell into a deep chloral sleep.

For over an hour he was profoundly under the chloral and perfectly flaccid, and I feared to give any more (I had given 90 grains in all) lest he should succumb to the antidote. At about 1.15

he awoke and talked freely; felt better; desired to recover, and was free from twitching. This was more than four hours after the symptoms had begun. Reasoning from his condition and the teachings both of the schools and standard books, I now gave a good prognosis.

I remained with him, however, and at 2 p.m., as the convulsions had returned, I gave him 10 grains more of chloral. This reduced them in force and frequency, but did not abolish them. Until about 4 p.m. his condition seemed satisfactory. I gave him 30 grains bromide at 4.30 as the signs of strychnism had returned more markedly. At 5.45 I was talking to him when he suddenly took a paroxysm very similar to one particularly referred to as occurring at 11.15 a.m. Opisthotonous was well marked, the legs were rigid and wide apart. Rapid asphyxia supervened in a few seconds, and on the spasm suddenly relaxing I found that he was dead.

Referring to the paroxysms, they did not occur more often when most frequent than every ten to fifteen minutes. A noticeable feature was the extremely sudden cessation of each fit. He would be writhing vigorously one moment, the clonic movements implicating apparently the whole body, and when the climax seemed at hand, without any gradation, the body would instantaneously become limp. His chief desire was to drink water and to be turned on his side, a proceeding we carefully avoided. He perspired copiously, and had a premonition of the approach of each convulsion before it came.

The particular point of interest in this case is the length of time that elapsed between the onset of symptoms and death, a period of at least eight and three quarter hours. All the teachings and the standard works I have been able to consult, state in effect that once the symptoms of strychnine poisoning commence they progress rapidly either to recovery or death; that the poison is so quickly eliminated that if the patient live two hours his chance of recovery is good, and practically certain after four or five. Stevenson (Taylor, 11th ed.) gives five and a half hours as the longest period he had seen elapse before death; and both Taylor and Guy Ferrier (5th ed.) give six hours as the outside limit. Ringer (12th ed.) says: "in a fatal case death is rapid, but if the patient survive two or three hours sanguine hopes may be entertained of his recovery."

If any readers have personal knowledge of cases which, like this, have transcended the usual term at which death may be expected to occur, I trust they will make them public to the profession, as it is certainly desirable in every respect that the usual teachings on this subject be modified by the results of experience.

A REMARKABLE CASE OF DEATH FROM SNAKEBITE.

BY D. SKINNER, M.A., M.B., BEECHWORTH, AND A. MUELLER, M.D., YACKANDANDAH, VICTORIA.

◆

THE unusual amount of interest that has recently been displayed as to the pathology and treatment of snakebite is our justification for putting on record a case that we consider in many respects unique. If to some the minuteness of detail may appear wearisome, we must plead as excuse the importance of the subject, and the fact that very few cases have been recorded with sufficient exactness to be of any value to subsequent observers.

CLINICAL REPORT BY DR. SKINNER.

History of the Case.—Miss D., aged 17 years, a young lady of excellent physique, and apparently in perfect health, on stepping out of her bath about 6.30 p.m. on the evening of the 29th January, experienced a sharp pain in the second toe of her right foot. She began to feel faint, and noticing the toe bleeding a little, she stepped back into the bath to wash it and to attempt to dispel the faintness; but finding herself becoming worse, she partially dressed and attempted to regain her room, when her collapsed condition was observed by some of her relatives, who immediately carried her upstairs to bed. She was then almost speechless, with cold skin and extremities, and of a bluish colour on the face and lips. She was unable to state what had happened, nor was the nature of the wounds on the toe at once apparent; and as she had some time previous been subject to fainting fits, the true significance of that symptom was not appreciated. Brandy was, however, administered in moderate doses, and after the patient had vomited some blood-stained fluid she rallied considerably.

Thus matters stood when, about an hour after the injury to the toe, a relative saw a small tiger snake issuing from the bath room, and while killing the reptile the true state of affairs dawned on him. He questioned the patient as to whether she had seen a snake, when she replied that she had seen one, and that it had bitten her twice. The shock to the nervous system and subsequent collapse appeared to have deprived her of any recollection of the occurrence until it was revived by the mention of the snake.

The usual remedial measures in cases of snakebite were familiar to the patient's relatives, and they proceeded to carry them into effect, thinking they might be of some benefit, even after the lapse of over an hour. A tight ligature was applied above the ankle, another above the knee; the punctures were probed with the point of a knife and well sucked. A messenger was sent to a neighbouring homestead for a hypodermic strychnine case, and another to me, at a distance of 12 miles, for medical assistance. I arrived on the scene about 10.30 p.m.—about four hours after the infliction of the bite.

Condition of Patient.—The face was somewhat flushed and expressed a moderate amount of suffering, but no great anxiety. The skin was warm and moist; pulse firm, 90 per minute; respiration slightly accelerated, but easy and natural. Articulation was perfect; intelligence clear and bright. The pupil was natural, and reacted normally. The patient's only desire was to have the ligature—which was causing great pain—removed without delay.

On the affected limb I found a deep indentation above the knee, caused by the constriction of a ligature, which had been removed some time previous, owing to the intolerable suffering caused by it. The ligature round the ankle was retained, and had effectually stopped the venous circulation, so that the whole foot was much swollen, dark purple in colour, and showed marked pulsation in the superficial veins. On examining the bitten toe I found nothing like the classical two punctures, but three somewhat irregular marks—first, a longitudinal scratch one-eighth of an inch long over the root of the nail; second, a well-marked puncture in the middle of a bluish, rounded elevation over the distal joint; third, an almost invisible puncture in a similar swelling over the second joint.

This last puncture had been, I was told, distinctly visible before the application of the ligature, but the general swelling had almost caused its disappearance. I cut deeply into all three punctures till they bled freely; had the sucking continued for 20 minutes more; removed the ligature and gave a small dose of brandy (she had previously received about 3oz. in all) and awaited results. In less than half-an-hour the patient appeared perfectly comfortable, and inclined to sleep; and after enveloping the foot in a carbolized poultice and seeing her fall into a natural sleep I left the room, giving instructions that I should be called if she awoke, or if she slept too heavily.

At midnight I was called to see her, not on account of any suspicious symptom, but because blood was oozing rather freely from the wound, soaking the dressings and the sheets; I estimate the loss at three or four ounces. On opening up the wound, blood was welling out freely, showing no tendency to coagulate. I then removed the poultice and applied pressure with dry dressing, and there was no further trouble in this respect. At this time there was neither swelling nor pain in the affected foot, and the acuteness of sensation, as tested by Weber's method, was perfectly normal. The general condition of the patient was likewise all that could be desired—respiration, circulation, phonation, articulation, deglutition, reaction of pupils, were all natural. After remaining about two hours longer, I felt justified in assuring the patient's friends that she had successfully resisted the effects of the venom, and that she would most likely be herself again by morning; and I returned home quite free from any anxiety about her safety.

On the following afternoon I received a telegram to the effect that the patient had passed a good night and awoke bright and fresh, but at midday was somewhat feverish and complained of some stiffness in the neck, and had slight difficulty in swallowing. It was hard to believe that the poison was only beginning to act at that late period—eighteen hours after the bite—the presumption being that these were only disagreeable after effects of the excitement; but nevertheless I gave a somewhat guarded reply and requested further information in the evening, and on this coming to hand to the effect that the unpleasant symptoms were persisting, I went to see the patient for the second time shortly after 8 p.m.

Her condition then, 26 hours after the infliction of the bite, was as follows: She was propped up, at her own request, in a semi-recumbent posture; the countenance expressed fatigue and some anxiety; the breathing was somewhat laboured and shallow, 25 to 30 per minute, mainly thoracic in character, the auxiliary muscles of respiration being, to some extent, called into requisition, though not to such a marked degree as was observable at a later stage. Articulation was somewhat interfered with; the tongue was not under complete control; and in attempting to form sentences the patient frequently repeated syllables and short words. Deglutition was somewhat difficult, though liquids could be swallowed by a determined effort. The pupil was somewhat dilated, but responded readily to light; in fact it appeared positively irritable, contracting too quickly, and as quickly dilating. Later this symptom was so marked that the pupil might be described as tremulous. The pulse was regular, fairly firm, 90 to 95 per minute. The general muscular system appeared to have suffered very little, the skin was warm and dry, and the bitten limb differed in no respect from the other. No fæces and very little urine had been passed since the accident. The patient had taken a fair amount of liquid nourishment, with small quantities of wine and brandy.

There could be only one explanation of the late appearance of these symptoms of poisoning of nerve-centres, viz., deficient action of the eliminatory apparatus, and this was sufficiently evidenced by the appearance and small quantity of the urine, which on a rough inspection indicated an acute nephritis. Anticipating that such would be found to be the state of affairs, I had provided myself with a purgative (hydrarg. subchlor. gr. vi, to be followed by a seidlitz powder), and a stimulant diuretic mixture (liq. ammon. citrat., sp. am. aromat., c. t. digitalis); and these were duly administered, unfortunately with no effect. At the same time, for the purpose of stimulating the flagging nerve-centres in the medulla, the hypodermic injection of strychnia was commenced. At 8·30 p.m. $\frac{1}{20}$gr. of strych. sulph. was injected with most gratifying results; within ten minutes the speech, swallowing, and breathing became nearly normal; the patient could lie comfortably in the recumbent posture; and after swallowing some milk and brandy enjoyed about two hours' sleep. For the rest of the night she was fairly comfortable, dozing and wakeful by turns, but there was no return of respiratory trouble till 5 a.m. About 3 a.m. she passed six ounces of urine, the character of which will be described later. No more was passed till she died.

At 5.30 a.m. on 31st the patient was again sitting up and breathing with difficulty, and $\frac{1}{18}$gr. of the strychnine was injected with equally good effect. But this time the relief was of much shorter duration. About 7 a.m., however, the patient seeming fairly comfortable, I left for a few hours to attend to some necessary business, leaving directions that the dose of strychnine should be repeated if similar symptoms supervened, and if no twitching of muscles took place.

On my return home I found the character of the urine to be as follows:—Reaction acid; sp. gr. 1028; appearance dirty brown and muddy; albumen present to about one-third of bulk in test tube. Microscopical examination of a drop taken at random, without settlement, showed the field packed with shrunken, red blood corpuscles, a few blood casts, numerous granular and cloudy epithelial casts, and general epithelial debris. These are surely the characters of an acute toxic nephritis, such as we meet with in diphtheria, scarlatina, and erysipelas, and appear to me to indicate a direct necrotic action of snake venom on the renal epithelium.

After six hours' interval I again saw the case about 1 p.m. in company with Dr. Mueller, whose services as consultant I had meanwhile secured. Two strychnine injections had been given in the interim ($\frac{1}{18}$gr. and $\frac{1}{20}$gr.), but with decreasingly favourable results, and the aspect of the case was considerably worse. The patient was propped upright; respirations 60, shallow, laboured, every auxiliary muscle strained to the utmost; speech jerky and monosyllabic; swallowing very painful and difficult, the fluid finding its way into the larynx and lungs. The pulse was 110, becoming somewhat thready; intellect clear and bright. No fæces had been passed and no urine since 3 a.m.

As no other treatment seemed to offer any hope of averting a fatal result, it was determined to push the strychnia injections till physiological results supervened, and five injections of $\frac{1}{10}$gr. were administered half-hourly from 1.30 to 3.30 p.m. The effect of the three first was to diminish the number and increase the depth of the respirations, but the heart's action was not improved, nor was the act of deglutition much facilitated. The jaded nerve-centres gradually lost the power of responding to the stimulus, and exhaustion became more and more marked.

Finally, at 3.30 p.m., after the fifth injection of $\frac{1}{10}$gr., the first physiological effect of strychnine declared itself in the shape of a weak convulsion with slight opisthotonos, and the breathing ceased entirely. The heart continued acting for about 10 minutes more, during which time artificial respiration was performed without success.

Death took place 45 hours after the bite—27 hours after the onset of special symptoms, and 19 hours after the first strychnine injection. It is needless to explain that brandy and liquid food were given freely so long as the patient could swallow, or that the diuretics and purgatives entirely failed to act. The total quantity of strychnine injected was, roughly, $\frac{4}{5}$gr.

The remarkable features of the case are these: First, the complete recovery from the initial shock and collapse without any special treatment; second, the failure of elimination, owing to toxic nephritis; third, the slow and fatal poisoning of nerve-centres, for which special treatment proved futile.

Moreover, a careful study of this case, the slow march of which afforded unusual opportunities for observation, is capable of throwing considerable light on several vexed questions in connection with snakebite.

1. To those medical authorities that are in the habit of decrying the lethal powers of Australian snakes the perusal of such a case will give food for reflection. A half-grown tiger snake biting a healthy subject under favourable circumstances (*i.e.*, favourable to the snake) produced a fatal result to which neither fear nor alcoholism contributed.

2. The classical description of a double punc-

ture does not necessarily apply to every case. Here we found three marks in the middle line of the upper surface of the toe. Underneath, after death, a small echymosis was found opposite the uppermost mark. We can account for this only on the supposition that the snake did not strike but actually chewed the toe, as appeared to have been the case in one of Dr. Mueller's recorded cases. This would give ample time for the injection of all the venom in its gland.

3. The mode of action of snake venom is here fully illustrated. It was first a general depressant of all the nerve-centres, voluntary and involuntary. Afterwards it appears to have acted on the blood, diminishing its coagulability, and on the renal epithelium, destroying its vitality and causing it to be shed in large quantities; and finally it exercised a selective influence on the adjacent centres of respiration and deglutition, and by paralyzing them brought about death by asphyxia.

4. I consider that this case will help us to a fairer appreciation of the true value of the strychnine treatment than will any number of sensational cures. It proved to be an extraordinary stimulant to the special nerve-centres attacked by the venom, and under more favourable circumstances might doubtless have helped to sustain life till the poison was got rid of; but on the absolute failure of elimination its stimulative properties gradually failed.

5. At one stage of the treatment the use of pilocarpine suggested itself, but was considered too risky in view of possible heart failure; and the use of strychnine had the sanction of much greater authority. I am bound to say, however, that in a similar case, with the same kidney complications, I would unhesitatingly use it, probably in combination with strychnine and alcohol.

COMMENTS BY DR. MUELLER.

To avoid useless reiteration, I confine my remarks on this extraordinary and highly interesting case to those points which are not dwelt on by Dr. Skinner, or in which my opinion differs from his.

The symptoms presented by Miss D. when I first saw her, two and a half hours before she died, were dyspnœa and dysphagia, together with complete blockage of the kidneys, causing urinary changes of an unusual kind. The paretic condition of the respiratory and glosso-pharyngeal centres, which at any moment threatened to culminate in paralysis, were unlike anything I have ever observed in tiger snakebite, but presented a complete facsimile of the picture, so graphically drawn by Dr. Wall, of the victims to cobrabite. Vincent Richards, writing some years ago in the *Australasian* Journal on Indian and Australian snakes, called our tiger snake the Australian Cobra, but dwelt principally on its great similarity to the Cobra di Copello in appearance. That this external likeness of the two reptiles could extend in rare cases of tiger snakebite to an absolute identity in the effect of their poison, and that even a small, half-grown tiger snake could produce the formidable symptoms of cobra poison, was not known at the time, and Miss D.'s is the first case to place this interesting fact on record. The small, insignificant-looking animal, barely 30 inches long, which was shown to me as having inflicted the fatal bite, could not even have inserted the poison fangs on the back of the toe to their full length. The quantity of poison it imparted can, therefore, have been but small, and this probably accounts for its insidious, slow, and deceiving action. It must, however, have been absorbed before ligatures were applied, for it appears to have spread over all the motor nerve-centres in the usual rapid manner of tiger snake poison. Being too small in quantity to maintain its hold on them, it was thrown off in a few hours, then—strange to relate—remained inert for hours, and, stranger yet, appeared again on the following day with a fatal hold on the centres it touches but slightly in its usual course as if by some mysterious process it had, on its re-appearance, been converted into cobra poison. In this new *rôle* another symptom, in addition to those mentioned, appeared conspicuously. Coma was completely absent, the action of the cortical centres, usually suspended in tiger snakebite, was painfully intact. Even a short time before her death, when articulation had been reduced to a mere whisper, the young lady conversed with her friends by her fingers, in the manner of the deaf and dumb. Finally, to complete the picture, paralysis was ushered in by convulsions, exactly as it is in cobrabite.

The question why the antidote, after acting satisfactorily at first, failed towards the end, admits of several answers, all of which, however, at our present state of knowledge, must necessarily be hypothetical. The most probable one is, that after the nerve-centres have been for many hours under the influence of the poison, structural changes take place in them which preclude their being roused into normal action by the antidote.

That during the period of apparent recovery, and even after the first successful injections, the snake poison would have been thrown out and given no further trouble if the kidneys had not been blocked at an early stage, can scarcely admit of doubt, but it is very doubtful whether under such circumstances an appeal to the skin by pilocarpin can be effectually carried out, for the blood generally recedes from the surface and accumulates in the distended large veins of the abdomen, the skin becoming cold and blanched. I must also express my doubts as to the condition of the kidneys, disclosed by the examination of the urine, having been acute nephritis. There was no pain, at least none complained of, and it appears to me more probable that the complete blockage of the kidneys was brought about by the process known as diapedesis.

It has been shown by Feoktistow that when the mesentery of an animal is sprinkled over with a 2 per cent. solution of snake poison the capillaries become dilated at once wherever they are touched by the poison, and immediately blood corpuscles pass through them, together with more or less plasma. If during the passage of the poison through the kidneys the same process takes place in exceptional cases, the appearance of shrunken red blood corpuscles, blood casts, and epithelial debris in the urine would necessarily follow, together with a complete blockage of the kidneys and an abundance of albumen in their scanty secretion, which, under these circumstances, would largely consist of blood plasma. That actual hæmaturia takes place here, as in Indian viper bite, was hitherto unknown to me, but recently a fatal case of tiger snakebite has been reported to me of a girl of nine years, who voided per urethram a pint of almost pure blood, and whose kidneys appear to have also been blocked at an early stage. These cases precluding elimination and all chance of recovery are fortunately rare.

CLINICAL MEMORANDA.

DISLOCATION OF THE SHOULDER REDUCED UNDER ETHER AFTER EXISTING SIX WEEKS.

◆

(The Editor of the A. M. Gazette.)

SIR,—Daniel M., *æt.* 50, stonemason, came to the hospital complaining of inability to move his right arm. This he attributed to a fall on his shoulder six weeks before. He was otherwise quite well.

Examination.—Patient is a very muscular man. The right arm, which is wasted from disuse, hangs by his side, and he cannot raise it. He can flex the forearm and bend his fingers. The deltoid is much wasted. The acromion process is prominent, and below it is a distinct depression. Under the coracoid process is a fulness, which, on rotating the arm, appears to be the head of the humerus.

An unsuccessful attempt at reduction was first made without ether. An anæsthetic being given, Kocker's method of rotation was first tried without success. I then put my heel in the axilla, and after strong traction some adhesions gave way, and the head of the bone slipped back into the glenoid cavity. The arm was then bandaged to the side.

For these notes I am indebted to Dr. Seabrook, the House Surgeon at the hospital.

I am, Sir, yours, &c.,
C. E. TODD,
Assistant Surgeon Adelaide Hospital.
Adelaide, January, 1893.

POISONING BY CARBOLIC ACID—DEATH IN TEN MINUTES.

BY ARTHUR W. MARWOOD, L.R.C.S. AND L.R.C.P.E., L.F.P.S. GLAS., HON. SURGEON GEELONG HOSPITAL, VIC.

◆

MY reason for reporting this case was the very short time that elapsed from the time of swallowing the acid until death ensued. The majority of text-books on this subject give the shortest time as an hour; Taylor states two cases where death followed in twenty minutes.

On January 1 I was on my rounds when a man highly excited stopped me, stating his sister had taken poison, and requested me to go at once to the house, a distance of about fifty yards. On my arrival I found the patient, a girl of 17 years, beyond medical aid, and she died within a minute of my arrival. A frothy fluid was exuding from the mouth and a distinct odour of carbolic acid was present. Not more that ten minutes could have passed from the time of swallowing the acid until death ensued.

I made a *post-mortem* the following day, and the usual signs of carbolic acid poisoning were present, the whitened and shrivelled appearance of the lining membrane of the mouth, œsophagus, stomach, &c. The quantity taken by the deceased was estimated by me to be about an ounce, and contained nearly 90 per cent. of the pure acid. The acid had been ordered to be diluted with water and used as a lotion.

COMPLETE INVERSION OF UTERUS.

◆

(To the Editor of The Australasian Medical Gazette.)

SIR,—On the 19th January I was called in consultation to see the subject of the following history:—

M. A. E., *æt.* 24 years; married 10 months; primipara; in labour for seven hours; full-time child born without difficulty; placenta left in uterus for a little over an hour; then the whole mass attached to the fundus uteri was expelled through the vaginal orifice. A midwife had attended up to this, a doctor was now sent for, and on arrival he found the woman almost pulseless at the wrists, the everted uterus with the placenta attached to the fundus projecting from the vaginal orifice, all being outside except the external os and a small part of the cervix uteri. The uterus was quite flaccid. He rapidly peeled off the placenta with little loss of blood, and endeavoured to return the uterus, but the patient died almost immediately.

When I saw her she was dead, with the uterus as above, the rough irregular surface where the placenta had been attached being most dependent.

I made inquiries as to the conduct of the labour, but I learned nothing to lead me to suspect that there was any mismanagement, and I believe that the inversion was spontaneous. The woman had been in delicate health for some years.

I am, yours, faithfully,
JOHN B. NASH, M.D.

Wallsend, N.S.W.,
February, 1893.

PROCEEDINGS OF SOCIETIES.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

MONTHLY Meeting held at Adelaide on 23rd February, 1893.

Present: The President (Dr. Way); Vice President (Dr. Poulton); Drs. Clindening, Lermitte, Morris, Michie, A. E. Wigg, H. H. Wigg, Giles, Perks, Rogers, Teichelmann, J. A. G. Hamilton, Swift, T. K. Hamilton, Hayward, Archer, Ewbank, Seabrook, A. A. Hamilton, MacLeod, Borthwick, Hope, Cavenagh-Mainwaring, Gibbes, Brookes, and the Secretary (Dr. Lendon). Messrs. Russell, Moule, and Sangster (undergraduates) as visitors.

PATHOLOGICAL EXHIBITS.

PROFESSOR WATSON: Osteological Exhibits.

DR. LENDON: Melanotic Sarcoma and Abscess of Liver (Case II.)

MR. E. TEICHELMANN showed:—

1. Two ovarian cysts with marked papillomatous degeneration of their peritoneal surfaces, which he had successfully removed from a patient aged 45 years. There had been no occurrence of ascites, the patient being in good health more than 12 months after the operation. A microscopic examination of the cauliflower-like vegetation showed it to be simple papilloma.

2. The appendages from a case of Myoma, which he had successfully removed in May last. The ovaries were much enlarged, cystic, very adherent to surrounding structures, and presented great difficulties in the way of their removal. The myoma was of four years' standing, multinodular, and as large as an adult head. During the first two months after the operation it increased much in size, but subsequently commenced to shrink, and now it is less than one-third its original size. All symptoms have disappeared and the patient is in excellent health.

3. A small fruit stone (orange pip) which he had removed from the cæcal region of a lad aged 19 years, while operating for acute septic peritonitis following perityphlitis. The patient, who was suffering intensely from shock previously to the operation, died a few hours after, and within 12 hours of the onset of symptoms of general peritonitis.

4. The right uterine appendages which he and Dr. Archer had removed from a patient suffering from internal hæmorrhage. A diagnosis of ruptured tubal pregnancy was made, but the progress of the case was so extremely rapid that the patient was in a moribund condition before materials could be collected to perform the operation. The patient died before the operation could be completed. The abdomen was distended with blood clot. The rupture in the tube was as large as the tip of the little finger and situated so close to the uterus as to be almost in the uterine tissue. The pregnancy was estimated to be of about six or eight weeks' duration, and yet the tumour it formed was, after rupture, no larger than a small walnut. The patient was in perfect health within 12 hours of the fatal termination.

LIVING EXHIBITS.

DR. LENDON: Abscess of the Liver (Case VI.)

DR. T. K. HAMILTON exhibited the two following cases:—

NO. I.—REMOVAL OF A CHIP OF STEEL FROM THE LENS AND RECOVERY WITH NORMAL VISION—APHAKIA CORRECTED.

L. L., aged 27, about eleven months ago, when working at his trade as a blacksmith, got a chip of steel in his right eye. Soon afterwards violent inflammatory symptoms set in, with iritis and traumatic cataract. Careful examination failed to discover any foreign body, but the symptoms becoming so urgent it was resolved to explore the space between the iris and lens with the electro-magnet to see if the piece of steel could be found. A small posterior synechia about midway up the inner side of the pupil suggested the spot to push the magnet towards first, and as soon as its point approached the place the piece of steel sprang to meet it from behind the iris, and was readily withdrawn. The foreign body was probably impacted in the capsule or in the lens substance, because its removal caused laceration of the capsule enough to allow of free extravasation of soft lens material into the anterior chamber, and subsequent complete absorption of the lens without any further interference. The chief point of interest in the case is that the patient has recovered completely normal vision with his hypermetropia corrected, and the glasses required to make up for the loss of the lens.

Vision $\bar{c}$ 13 D. = $\frac{6}{6}$, and $\bar{c}$ 18 D. J. I. at 22 c.m. The pupil is very nearly round and movable, except at one small point above, where it is adherent to capsular remains, and the external appearance of the eye is practically the same as that of the other.

NO. II.—EMBOLISM OF THE CENTRAL ARTERY OF THE RETINA.

W. H., aged 83 (kindly sent to me by Dr. Elliott, of Morphett Vale). On February 6th, after running a short distance to catch his horse, he noticed he became giddy and lost his vision momentarily, and when this passed off he could not see out of right eye. He came to me on the day following (February 7th), and I then found he had only a faint perception of hand movement on the temporal side of the field. On examination, the usual signs of complete occlusion of the central artery were to be seen. The central portion presented the whitish opaque appearance, not unlike the bloom on fruit, which is due to œdema, and the typical cherry-red spot in the centre of the macular region was well marked. Two vessels, one below and the other above the macula, were found interrupted, and one abruptly broken off in its distal extremity. Most of the arteries were indistinct, and showed very faint streaks of light. The veins were somewhat larger at the periphery than towards the centre, and one of them pulsated on the disc. There were no phosphenes or pulsations of the arteries on pressing the globe. No hæmorrhages visible.

Dr. J. C. Verco kindly examined the patient's heart, and reported that there is stenosis and incompetence of the aortic orifice with much cardiac hypertrophy, and probably a little dilatation of the aorta beyond the valves.

Eserine and massage recommended.

February 23.—Examined again, and now some seven or eight small hæmorrhages are to be seen along the vessels above and below the macula. and one between the macula and the disc. There is less œdema and the central foveal spot is somewhat larger. The other signs are the same as before. These hæmorrhages occurring raise the question as to whether there may not have been some thrombosis of the veins as well as embolism of the artery; but even though hæmorrhages are not so usually found in embolism, the interruption of some of the arteries, the attenuation of others and the increased size of the veins peripherally, with the absence of that sausage-like turgescence seen on them in thrombosis, would seem to point to embolism as the sole cause.

Dr. Morris, of Port Adelaide, showed a case of sporadic cretinism, and read the following notes:—"Jane Maria Pearce, *æt.* five years and eight months. Family history: Parents native born and healthy; grandparents west and south of England, healthy; brother of mother dumb, and died five-and-a-half years ago in Parkside Asylum; sister of mother did not speak until seven years old. Both of these were well developed physically, and the latter has born healthy children. Patient is youngest of three children; the others are healthy. Mother has had three miscarriages—one before the eldest was born, two between the second and third. Life history: Very thin when born; mother did not notice anything unusual about the child until it was a year old, when she noticed it was not growing well and was not beginning to speak. Dentition began at 18 months, and patient has only just cut its two-year-old teeth. Patient is better in the cold weather. Chronic constipation; no fits; lately getting thinner, and tongue smaller, and takes more interest in surroundings; can say 'dada,' 'mamma,' 'mother' and a few other words; 28in."

On the motion of **Dr. H. H. Wigg**, seconded by **Dr. Michie**, the minutes of the last meeting were taken as read, and confirmed.

The **President** made an announcement with regard to the forthcoming International Medical Congress to be held in Rome.

THE LATE DR. J. DAVIES THOMAS.

The **Secretary** (Dr. Lendon) announced the death of Dr. J. Davies Thomas, who had been President of the Branch in the year 1887-8, and alluded to his valuable contributions to the proceedings of the Branch, to the esteem in which he was held by all classes amongst his patients, and to the sympathy evinced by the medical profession on the occasion of his funeral.

Dr. Hayward in a few sympathetic remarks proposed, and **Dr. Poulton** seconded, the following resolution, which, at the suggestion of the President, was adopted in silence:—"That this Branch of the British Medical Association desires to place on record its appreciation of the services rendered to medical sciences by the late Dr. John Davies Thomas, and its sympathy with his widow in her bereavement."

A copy of the foregoing resolution was ordered to be sent to Mrs. Thomas.

Papers on "Hepatic Abscess" were read by Drs. Giles, Hayward and Lendon, and some remarks were made by Drs. Poulton and J. A. G. Hamilton.

On the motion of **Dr. Giles**, it was resolved to defer the discussion till next meeting.

The other papers were postponed.

SEVEN CASES OF HEPATIC ABSCESS.

BY ALFRED AUSTIN LENDON, M.D. LOND.,
LECTURER ON FORENSIC MEDICINE AND ON CLINICAL MEDICINE IN THE UNIVERSITY OF ADELAIDE.

◆

As the subject of abscess of the liver has not on any previous occasion engaged the attention of this Branch, it was thought by the Council that an interesting discussion might take place if those members who had met with any such cases were to relate them. I venture, therefore, to bring under your notice the principal features of seven cases, which have occurred in my private and hospital practice during the last eight years, and which may be divided for convenience into two groups.

The first group consists of Cases I and II, and serves to illustrate two slightly-different forms of multiple pyæmic abscesses. In case I there were three separate abscesses found on *post-mortem* examination, two of which were unintentionally opened on merely lifting up the abdominal parietes from the liver, to which the peritoneum was adherent over their sites. These two were circular in shape, about 1½ inches in diameter, and very shallow, not more than a quarter-of-an-inch, perhaps, in depth. The third abscess was situate on the under surface of the liver. The pus contained in all of them was horribly fœtid: their existence was not ascertained during life: their pyæmic nature was proved by the existence of a similar abscess on the surface of the spleen, and of several in both lungs: they were evidently secondary to a stinking, suppurating hydatid of the liver; and they were probably due to the lodgment of septic emboli.

In Case II there was the same cause, viz., a suppurating hydatid in almost precisely the same situation on the convex aspect of the right lobe of the liver, but neither in the hydatid nor in the secondary abscesses was the pus fœtid. The abscesses were numerous, and situate not only on the surface of the organ but also in the interior. They were accompanied by others in the spleen, and by infarcts in the lungs, and by a parotid bubo.

CASE I.—MULTIPLE PYÆMIC ABSCESSES SECONDARY TO HYDATID OF LIVER.

Isaac F., *æt.* 11 years, was admitted into the Adelaide Children's Hospital on June 16, 1892. He had been under treatment for more than a year for supposed attacks of intestinal colic. A month before admission he became feverish, and a right hypochondriac enlargement was found: he was now obliged to keep in bed, and gradually became worse; and on the day preceding admission, during a sudden bout of coughing, he was said to have brought up about three-quarters of a pint of fluid, tasting like rotten eggs. He had always lived at Alberton, and was believed to have been in the habit of drinking water from the same trough as his dog.

On admission it was found: that his liver dulness was increased posteriorly to the level of the angle of the scapula, and that it reached in front from the fifth space in the nipple line to a finger's breadth above the level of the umbilicus; that owing to tenderness on palpation the lower edge of the liver could not be felt; that there was distinct bulging in the epigastric and right hypochondriac regions and distension of the superficial veins, but that there was no jaundice. There was not very much to be learnt from the examination of the chest. The cardiac apex beat was under the nipple in the fourth left interspace, an impulse being visible all over the præcordia, and there was impairment of physical signs at the extreme left base as well as over the lower right lobe. Patient had orthopnœa.

A suppurating hydatid of the liver on the convex surface was diagnosed, and as the breath and expectoration were both very fœtid, it was supposed that the hydatid had burst through the diaphragm into the right bronchus. No corroborative evidence of this, however, was obtained from the examination of the sputum.

On June 19, under chloroform, an aspirator needle was inserted in mid-axilla, and pus found rather deeply. A portion of the eighth rib was excised and the pleura opened. Lister's forceps directed downwards and inwards entered a cavity, from which about half-an-ounce of fœtid pus escaped. This was irrigated after the deep structures had been sewn to the superficial. The needle was again inserted nearer the spine and pus struck; and as the needle's point could be felt through the incision, forceps were introduced in this direction, and exit was given to several ounces of very fœtid pus with numerous daughter cysts and some caseous masses. After irrigation the mother cyst also came away—degenerated, gelatinous-looking and bile-stained. The irrigation did not give rise to any cough. Examination of the cavity with the finger gave, both to my colleagues and myself, a most deceptive feeling, as if we were exploring in the pleural cavity and could feel the different lobes of the lung in a state of compression; and we arrived at the conclusion that the hepatic hydatid had burst into the pleura and subsequently through the bronchus. its hepatic origin was subsequently proved by the escape of bile from the wound. Contrary to my expectation, no improvement followed upon the operation: the hectic fever and fœtid expectoration continued, and there was no diminution of the liver dulness: there were, further, some evidences of localised peritonitis. Suspecting the presence of another hydatid, I aspirated on July 1 under anæsthesia in several places, but with no result.

The child lingered another fortnight with all the symptoms of septicæmia, vomiting, diarrhœa, ulcerative stomatitis, localized pleurisy, attacks of syncope, and with finally some slight œdema of the right leg.

At the *post-mortem* examination (July 15) it was found that the thoracic wound communicated with a cavity on the convex surface of the liver, which had been reached through the diaphragm, and from one to two inches of liver substance: this cavity had now the capacity of a small orange, and contained a little pus. There was no perforation through the diaphragm into the bronchus, but, on the contrary, a dense layer of organized lymph half-an inch in thickness, uniting the adventitious cyst to the diaphragm without the intervention of liver substance. There were also found on the surface of the liver three abscesses with fœtid contents, as before described, and several in the lungs and one in the spleen.

CASE II.—MULTIPLE PYÆMIC ABSCESSES SECONDARY TO HYDATID OF LIVER.

Mrs. D., *æt.* 36, was admitted into Hope Ward on February 4, 1893. She had been ill a fortnight, the illness commencing with profuse and frequent diarrhœa, the motions later on becoming dark and semi-solid. No blood had been noticed. For a week she had suffered from abdominal pain of a sharp, shooting character.

On admission she had marked jaundice. The liver did not seem from palpation and percussion to be enlarged as regards the right lobe, nor could an enlarged gall bladder be detected, but there was a smooth and scarcely tender enlargement, presumably of the left lobe, which seemed to reach to within a short distance of the umbilicus, but caused no prominence of the abdomen. She had no vomiting or diarrhœa. There was also an acute parotitis on the right side, which suppurated, and was lanced on the 12th. The day following she became collapsed, and on the 16th she died, the abdomen being distended and tympanitic.

At the autopsy no intestinal lesion was found. There was a hydatid, bile-stained and suppurating, on the upper surface of the right lobe, and throughout the liver generally numerous scattered abscesses, varying in size from a sago grain to a pigeon's egg, some bile-stained (specimens shown). There was slight development of gas in the shape of bubbles in the liver tissue. The spleen was sprinkled with small abscesses like the smallest of those in the liver, and the lungs showed very recent punctiform infarcts and commencing pneumonia. The main bile ducts of the right lobe were incorporated with the hydatid wall, hence the jaundice.

In the second group of cases No. III is peculiar, inasmuch as the abscess was very small and was cured by aspiration. It may possibly have been a hydatid, but there was no proof of this; moreover one seldom meets with such a small hydatid which has suppurated.

No. IV requires no comment, patient being virtually moribund when he came under my care.

CASE III.—IDIOPATHIC ABSCESS.

Mrs. L., aged 22, a butcher's wife, consulted me in 1885. She had severe pain in the right hypochondriac region with tenderness over a very limited area, and a slight degree of fever. As I suspected the presence of a small hydatid, an aspirator needle was inserted through the abdominal wall. A small quantity—not more than a teaspoonful—of pus was obtained, which was inodorous. On the withdrawal of the needle it was not found to be blocked. The pus was examined under the microscope, but no evidence of echinococci found. Patient completely recovered.

CASE IV.—TROPICAL ABSCESS.

In the summer of 1889 I was called down to Largs Bay to see Major W., who had just arrived by a P. and O. steamer from India, and was on his way to New Zealand. He was a retired Anglo-Indian officer, and about 56 years of age. He had just been paying a short revisit to India, and had been very ill during the passage to Adelaide. It was with some difficulty that I got him up to the Private Hospital. He was extremely emaciated; had hectic fever, and presented the physical signs of a painful and tender enlargement of the liver. He was aspirated, and a large quantity of pus drawn off, and a few days later a drainage tube was introduced through the chest wall. He became comatose and sank in a few days.

Case V presents this feature in common with many cases of tropical abscess, that it appeared to come on after an attack of dysentery—a disease which was prevalent among the navvies who were working in the far north (about 28° of latitude) on the railway extension. A similar case of Dr. Way's was reported, * where the disease was contracted on the Barrier Ranges.

Dr. Verco had also a case from the Barrier (appendix, Case XIV), and Dr. Hayward a patient who lived at Callington. In the appendix are cases of patients living at Echunga and in North Adelaide (Cases IX and X).

CASE V.—ABSCESS AFTER DYSENTERY—OPERATION—RECOVERY.

Philip A., *æt.* 29, single, had lived in the colony for 25 years, and always enjoyed good health. As to his habits I can find no note, but he gave the following history when admitted on January 18, 1890, into the Alexandra Ward of the Adelaide Hospital:—He had been working as a navvy on the Transcontinental Railway Extension, some 600 miles north of Adelaide, and in June, 1889, suffered from an attack of jaundice with pain in the right side. In the following November he had an attack of dysentery, which lasted a week, and was attended with the passage of blood in small quantities; then pain came on in the right side, and gradually disabled him from work.

On admission he was hectic, sallow and emaciated, but not jaundiced. His liver dulness was greatly increased upwards, and there was pain and tenderness on pressure in the right hypochondrium.

On January 20 a needle was inserted in the fifth space in the axilla with negative result.

On February 6 he was aspirated nearer the margin of the ribs and pus obtained, in which no hydatid membrane or hooklets could be found. The site of the puncture became inflamed, and on February 13, under ether, a superficial abscess was opened. The needle was inserted again into the liver abscess, which was freely incised without resection of rib, irrigated and drained, with the result that it healed up in a month.

Case VI had not lived out of Adelaide for years and had no antecedent diarrhœa. Though not a teetotaler, the patient and his wife both assured me that he was strictly moderate in the matter of alcoholic drinks; I am inclined, therefore, to think with the patient that his abscess was of traumatic origin, though such an origin seems to be rare. In the appendix (Case XIII) will be found a probable instance of traumatic abscess.

CASE VI.—TRAUMATIC ABSCESS—OPERATION—RECOVERY.

James M., *æt.* 49, married, a master baker, sent for me on April 10, 1892; he was feverish and had severe pain in the right hypochondrium. As he had passed two small calculi about two and a half years previously I suspected that the pain might be due to renal colic, although the patient thought otherwise. My suspicion derived some confirmation from the fact that about two months before this he had consulted me on account of a swelling of the right testis, for which no cause was apparent and which rapidly subsided under treatment; he himself, however, attributed his pain to excessive strain in lifting the side of a cart about a week before I saw him. During the next fortnight the pain became much worse (so bad indeed as to prevent rest, even with frequent doses of opium) and more localized in the epigastrium, where there was excessive tenderness on pressure, which prevented one from estimating the limits of the liver below, although examination of the back of the chest showed that the liver dulness was greatly increased; the shivers and sweats and pyrexia all pointed to suppuration within the abdominal cavity, and most probably in the liver itself.

---

* "Trans. Second Session Intercolonial Medical Congress," p. 231.

On April 21 I had a consultation with Dr. S. K. Ellison, and on the 29th, with his assistance, under ether I aspirated in the epigastrium, where there was now a distinct bulging, and obtained pus, which was thick, "laudable," inodorous, and afforded under the microscope no evidence of hydatids. On May 8 Dr. Ellison again gave ether and I opened the abdomen in the middle line of the epigastrium, drew over the suspensory ligament to the left side, and verified with the aspiratory needle the position of the abscess. In attempting to stitch the capsule of the liver to the parietes there was much laceration and bleeding, so that I contented myself with plugging the abdomen with sponges around the prominent portion, which I incised, giving exit thereby to some few ounces of pus, but no trace of hydatid cyst. The abscess was thoroughly irrigated with hot water, and tubes O o inserted, which had no side apertures and which fitted tightly into the hepatic incision; the packing around was removed and the wound closed. On the 8th the tubes were taken out and some altered blood escaped. On the 9th a slight flow of bile occurred; on the 10th it was profuse, and on the 12th it ceased. On and after the 13th the temperature was normal. On the 16th the tubes were removed for good, no pus having formed since the operation. The sinus gradually closed, and patient left the private hospital on May 20. His recovery was retarded after his return home by the occurrence of pleurisy with effusion on both sides; the greater accumulation on the right side was emptied with the assistance of Dr. J. C. Verco on July 7, that on the left becoming absorbed. Patient then slowly became convalescent and returned to work on November 21, when there was a tendency to hernial protrusion through the scar (patient shewn).

Case vii is interesting on account of its apparent relation to a preceding attack of pleuro-pneumonia. Pyo-thorax, without perforation of the diaphragm, occurred (appendix, Case VIII) in a case of Dr. Way's, and was probably secondary to the liver abscess, being due, perhaps, to lymphatic absorption. Dr. Hayward's cases include one of hydro-hæmo-thorax, and peritoneal effusion as well, where the diaphragm was intact, the effusions being secondary to the hepatic abscess. In the absence of an autopsy one cannot deny the possibility that Case VII may have had an empyema as distinct from the hepatic abscess, but the history does not justify this conclusion. My case illustrates further the difficulties of diagnosis between hepatic and pleural abscess. From his observation of the case Dr. Niesche considered that it was probably empyema; in my ward it was diagnosed by the then house physician (Dr. Henry Giles) as hepatic abscess, and I felt no doubt as to the correctness of his opinion; the withdrawal by the aspirator of chocolate-coloured pus confirmed me in this opinion. In Dr. Poulton's case-book he is entered as a case of empyema, and the pleural cavity is stated to have been washed out. A similar mistake in anatomical diagnosis is mentioned in Case I. A confusion in diagnosis with a suppurating gall bladder or hydatid is not only more pardonable, but probably unavoidable. The only other condition simulating it that I have met with is suppuration in the abdominal parietes, of which I remember a case in Dr. H. Thompson's ward at the Middlesex Hospital in 1878.

CASE VII.—ABSCESS CONSECUTIVE TO PLEURO-PNEUMONIA.

James C., *æt.* 18, who had always lived in Adelaide, was admitted into the Alexandra Ward of the Adelaide Hospital on August 21, 1892, having previously been under the care of Dr. Niesche, to whom I am indebted for the following history: From May 21 to May 29 he was under treatment for an acute attack of right pleurisy without effusion: after a tardy convalescence he got wet through one day and had to remain all day in his wet clothes: pneumonia set in at the right base, and he was under treatment from June 18 to July 12, convalescence again being protracted. About a month later he had a rigor, and on August 15 was found to be feverish and presenting the physical signs of right pleurisy with effusion. Four days later the rigor was repeated, and there was distinct swelling in the hepatic region with great pain and tenderness. Patient also had occasional vomiting and severe diarrhœa ; it was thought now that he had empyema.

On admission he appeared to be very ill ; there was a slight cough with scanty mucous expectoration, considerable dyspnœa, a rapid dicrotous pulse, a coated tongue, and a sallow, muddy complexion. The cardiac impulse was diffused, the maximum beat being felt in the third left interspace just above the nipple ; the movement of the right side of the chest was much impaired, and there was dulness on percussion with weak breathing, diminished vocal fremitus and resonance from the level of the fourth rib in front and in the axilla, and from the middle of the scapula behind down to the margin of the thorax. The lower part of the thoracic wall was bulged, its intercostal spaces being obliterated, and there was a considerable prominence of the right hypogastric region, which was so tender on palpation that the edge of the liver could not be felt, although its dulness was ascertained to reach at least three inches below the costal margin. There was some evidence of compression of the lower lobe of the right lung against the spine, but not the signs of such an extensive pleural effusion as would cause such great depression of the liver, and we therefore came to the conclusion that there was an abscess situate in the liver itself and projecting from its convex surface, as there was no evidence of pressure on the structures in the portal fissure. An aspirator needle was inserted in the seventh space in the axilla and ℥15 of chocolate-coloured pus drawn off, which gave no microscopic evidence of echinococci. There was only temporary relief, and on August 30 he was again tapped under ether, ℥50 of similar fluid being drawn off through the sixth space in the anterior axillary line, an attempt to find the pus below the costal margin having failed. On September 10, ℥40 more were withdrawn under anæsthetic, but no real improvement occurred, and he was transferred to Dr. Poulton's ward. On September 17 the chest was incised in the sixth space in the axilla and ℥50 of pus drained without excision of a portion of rib. As the note states that the pleura was opened it is presumed that the abscess was then regarded as an empyema, but its hepatic origin was definitely settled a few days later by a copious discharge of bile. The hectic fever, sweats and diarrhœa continued, and the lad was removed home by his friends and died on the following day, September 29.

The fact that so many of my patients had resided for years in the colony naturally suggested the question as to whether the cases are identical, pathologically, with tropical abscess. My own impression is that they are identical, and I have endeavoured to show that they occur not only in association with dysentery, but also independently of it, and may not without reason be attributed occasionally to injury. For some no cause can be assigned, as in Case III, and where in Case VII the abscess appeared to follow pleuro-pneumonia, it is noteworthy that it occurred in winter.

With respect to treatment, I imagine we shall all incline to incision and drainage where practicable, just as we are accustomed to deal with hydatids of the liver ; hence one fails to appreciate the necessity for, or the advantages of, the elaborate methods recommended by Dr. Macleod, of Shanghai, or Dr. Manson.

I am chiefly indebted to Professor Watson for searching for the cases recorded in the appendix.

RECENT REFERENCES.

J. Davies Thomas, "Trans. 2nd Session, Intercolonial Congress, Melbourne, 1889."

Ewbank, *Australasian Medical Gazette*, vol. xi.

Dabney, *International Journal*, August, 1892.

British Medical Journal, vol. ii, 1891 ; vol. i, 1892.

APPENDIX.

Cases VIII to XII were in Alfred Ward, Adelaide Hospital, under Dr. Way.

CASE VIII.—HEPATIC ABSCESS AND PYOTHORAX—DEATH.

Samuel H., *æt.* 28 ; occupation, coachman living at Reynella ; three years in the colony. Caught cold and had a rigor a week before admission, followed by vomiting and diarrhœa. Admitted December 30, 1885, with abdominal pain ; some signs of enlargement of liver dulness and dulness at right base posteriorly. The symptoms continued, and patient died on January 7, 1886. The liver contained two abscesses the size of a fist ; there was no perforation of the diaphragm, but both the base of the right lung and the upper surface of the liver were adherent to it ; there was also pus in the right pleural cavity ; no ulceration of intestines.

CASE IX.—HEPATIC ABSCESS AFTER DYSENTERY —DEATH.

Adam R., *æt.* 54, labourer, North Adelaide, 25 years in colony. Admitted September 8, 1886, with a history of many months' dysentery. He was delirious on admission, had an increase in liver dulness, and died September 11, dysentery persisting.

Post-mortem.—Liver contained numerous (perhaps a dozen) abscesses scattered throughout its substance, and one immense cavity at the expense of the right lobe containing 1½ pints of pea soup-like pus. There was dysenteric ulceration of the lower bowel, but no abscesses in other viscera ; the lung was not adherent to the diaphragm.

Case X.—Hepatic Abscess after Dysentery—Death.

Edward H., *æt.* 50, lived at Echunga, 27 years in the colony. Admitted July 28, 1886. Diarrhœa for two months with frequent passage of blood. Tenderness at umbilicus, afterwards at epigastrium.

August 20.—Bulging of left costal margin and increased hepatic dulness.

September 15.—Epigastric tumour aspirated; pus obtained and large trocar inserted; 9oz. evacuated; constant diarrhœa till death on October 18.

At autopsy old scars of rectal mucosa, which was of smoky colour; perforation of abdominal wall by abscess; a second small abscess beginning to dry up.

Case XI.—Abscess (?) Embolic—Death.

J. Morse, *æt.* 40, admitted on April 1, 1886; died April 8. Had ague intropics, where he lived for 10 years; three years in colony; lived at Port Augusta. Two weeks' diarrhœa, attributed to bad water, before admission. Pneumonia.

Post-mortem.—No ulceration of bowel; unilocular abscess size of orange; smooth walls; slimy pus. Multiple infarcts of both lungs; pneumonia of right lung; splenic infarcts; thickened mitral valve the possible cause of these lesions.

Case XII.—Hepatic Abscess—Incision—Recovery.

John F., *æt.* 41, admitted September 29, 1886. Ill seven weeks with pain in hepatic region and vomiting, but no diarrhœa; had been drinking previously; slight jaundice; liver dulness enlarged both upwards and downwards; cardiac apex displaced one inch outside nipple.

October 16.—Aspiration to left of middle line in epigastrium; pus obtained.

October 21.—Aspiration to right of middle line; pus obtained very deep in liver substance. Aspiration in eighth space anterior axillary line; pus near surface; cavity incised, 11oz. of grumous evacuated; drainage and gradual healing. Discharged November 29.

Case XIII.—Traumatic Abscess.

G. A. G., *æt.* 22, was found at the autopsy to have the right lung and the upper surface of the liver both adherent to the diaphragm, and in the liver a "trabecular" abscess, or slough of liver substance, the size of an orange. On turning over the body a small bullet dropped out, presumably from the hepatic cavity. Patient had purulent bronchitis.

Case XIV.—Abscess after Dysentery—Death.

John H., *æt.* 54, admitted into Leopold Ward, under Dr. Verco, on March 31, 1889; died April 8. Worked on Barrier. Diarrhœa for three months; ailing vaguely for six weeks; abdominal pain for two weeks. A smooth resistant liver plainly felt, the edge being just below level of umbilicus in right mammary line; upper limit normal. Constant vomiting.

Post-mortem.—Extensive ulceration of large intestine and cæcum; liver adherent to diaphragm; in right lobe an abscess the size of a cocoanut, and five other smaller abscesses, mostly walnut size, and containing trabecular sloughs, found in liver.

Case XV.—Hepatic Abscess—Carcinoma of Pancreas—Death.

Mrs. L., *æt.* 68, admitted under Dr. Verco December 22, 1890; died January 5, 1891. No history of value; constipation; liver edge felt below rib; tender on pressure.

Post-mortem.—Abscess in upper part of right lobe of liver containing ℥iii of pus; several secondary carcinomatous nodules; carcinoma of pancreas; peritonitis.

TROPICAL ABSCESS OF THE LIVER.

By W. Anstey Giles, M.B. and Ch.M. Edin., Honorary Surgeon to the Adelaide Hospital and Lecturer on Clinical Surgery in the University of Adelaide.

On account of the comparative rarity of this disease coming under our treatment in this city, I am tempted to relate the points of interest in connection with a case which fell into my hands last year.

G. C., *æt.* 35, unmarried, born in this colony, consulted me on the 22nd January, 1892, complaining of acute pain in the abdomen, severe diarrhœa and rapid emaciation.

History.—On the 18th September, 1891, he left Adelaide for India, and a few days before his departure he submitted himself to a thorough examination by me. He was then a remarkably well-developed, powerful man in robust health, weighing 12st. 8lb., with all his organs perfectly normal. His family history was satisfactory, and with the exception of an attack of acute rheumatism some years previously had never been laid up with any illness.

He states that during his sojourn in India he never felt better in his life, and though not a teetotaler, was careful about the use of spirits, and was never guilty of over-indulgence in whisky "pegs." He was in Calcutta the whole time, and on the 2nd January, 1892, started on his homeward journey, apparently perfectly well.

When on the steamer within a day's journey of Colombo diarrhœa commenced. The stools were watery, of a pea-soup colour, but contained no trace of blood, and every three hours or oftener the bowels acted. He was quite free from pain, nor was there any fever. There was no sign of a rigor from the onset of his illness. He noticed that immediately after taking food the diarrhœa was most troublesome, and partly on this account, and partly because his appetite began to fail, he took very little nourishment; still he was able to get about with comfort, and even took part in some athletic sports that were held on board the vessel. Soon after leaving Albany (about 14 days from the commencement of bowel symptoms) the diarrhœa suddenly became much worse, and was accompanied by intense pain in the abdomen, especially over the stomach and liver. The doctor on board prescribed for him, but the medicines took no effect, and on the 18th January he arrived in Adelaide.

When I saw him I was shocked at the alteration in his appearance. His face wore an anxious expression; his complexion pale and muddy; his cheeks sunken, but no sign of jaundice. He exhibited most unmistakable signs of suffering, and referred the pain, which he said was constantly present, to the epigastric and hypochondriac regions. His tongue was coated with a white fur, but moist. His pulse was 100; temperature 101° F.; heart and lungs normal. Liver dulness was increased downwards to the extent of about three fingers' breadth below the costal margin. The lower edge of the liver could not be palpated on account of the excessive tenderness complained of when firm pressure was attempted. He was troubled with considerable flatulency, but never any nausea or vomiting. His appetite was much impaired, and he expressed great anxiety about his extreme weakness and lassitude. He had never suffered from any malarial poisoning on any previous occasion; never had syphilis.

For three weeks after this he was confined to his bed, during which time the liver gradually contracted, and the pain abated. The temperature varied from 99° to 101° for 10 days, then fell to normal and remained low. The tongue cleaned considerably, and the appetite improved. The diarrhœa, however, persisted and defied all remedies. Opiates had no effect. Large doses of bismuth were equally futile. I tried also hydrarg. perchlor. sulphuro. ac. lacti, &c., and other drugs without result. On one or two occasions, after large doses of catechu and chalk mixture, the bowels only acted three or four times in the 24 hours, when he complained of increased discomfort and pain in the hepatic region; in fact his pain was less and he felt generally more comfortable when the diarrhœa continued unchecked. Thin watery stools occurred about every two hours on an average.

At the end of four weeks, though the acute symptoms had disappeared, he was still exceedingly debilitated, and even more emaciated than ever. The muddy complexion and anxious expression were still apparent, and the diarrhœa persisted.

On the 4th March I asked Dr. Verco to see him with me in consultation, and we discussed the possibility of abscess in the liver; but as there were now no evidences of any enlargement of that organ we could arrive at no definite conclusion, but decided to continue internal medication to combat the diarrhœa, and await developments.

For some weeks after this his condition remained almost unchanged. The diarrhœa moderated at times, and when this occurred he experienced greater lassitude, weakness and general discomfort. The temperature was always normal, and the appetite remained capricious. Many changes of diet were tried in the hope that the looseness of the bowels might be arrested, but the food he took made little difference. The watery stools continued with much the same frequency whether he was on an exclusively milk diet or not. In spite of his extreme debility he insisted on getting about, and attended during a portion of each day to his ordinary duties. He was never quite free from pain; the feeling of fulness and discomfort in the hepatic region never entirely left him.

Towards the end of March a slight improvement manifested itself, and he was able to get about with less effort. His appetite improved to a considerable extent, so much so that he was able to take an ordinary meal of meat and vegetables, and enjoy and digest it. The diarrhœa continued, though to a greatly modified degree, and he began to put on flesh, gaining several pounds per week. His complexion became clearer, and in every respect a decided amelioration of all his symptoms was recognized. He continued to see me occasionally until May, when business matters called him away to Victoria, and he was absent from Adelaide the greater part of that month.

On 15th June he again presented himself at my consulting rooms, looking almost as ill as ever.

He had lost nearly all the flesh he had gained. The pain in the liver had returned with almost greater intensity than before, and the diarrhœa, which had abated to five or six loose motions in the 24 hours, was again most profuse, interfering greatly with his rest at night, as it was necessary for him to rise every two hours or oftener. His temperature was again elevated, and registered 100° F.

On this occasion my attention was, for the first time, drawn to a diffuse hard swelling in the epigastric region immediately to the left of the middle line, which did not move with respiration, and was incorporated with the anterior abdominal wall. This I took to be connected with a hepatic abscess, which was burrowing towards the surface. The swelling was quite hard, and gave no sign of fluctuation.

On the 24th June, with Dr. Verco's kind assistance, the patient was anæsthetized with ether, and a hollow needle thrust into the indurated area. After penetrating about an inch, thick dark pus appeared at the end of the needle. I then cut freely down, feeling confident that firm adhesions had taken place between the liver and the abdominal parietes. At the depth of an inch I entered a large cavity in the liver, and evacuated about 10 or 12 oz. of thick chocolate-coloured pus. On passing my finger through the opening I explored the walls, which were covered with shreds of neurotic liver tissue, but my finger was not long enough to enable me to reach the bottom of the abscess cavity I passed in a large drainage tube, 6in. long, after I had used the douche with boracic acid lotion freely, and then applied an antiseptic dressing.

The rest can be told in very few words, as his convalescence was remarkably rapid. The temperature fell to normal immediately after the operation, and did not rise again. In four days the diarrhœa had entirely ceased. Very little pus was removed each day with the dressings. No bile escaped, and the patient reported himself as perfectly comfortable. The drainage tube was discarded on the twelfth day.

Within three weeks from the date of the operation the wound had healed, and the patient was going about.

On the 11th August, 1892, when I last saw him professionally, he had gained two stones in weight, then scaling 12st. 4lb.; his complexion was clear; his appetite good; his bowels regular; and his general health excellent. No jaundice was present at any time during the whole course of his illness.

Remarks.—I presume that the correct explanation of the train of symptoms reviewed would be somewhat in this wise:—

Before leaving India the micro-organism responsible for the intestinal symptoms had lodged in the alimentary canal, hence the diarrhœa, which began to trouble him about three days after leaving Calcutta. The general intestinal irritation produced acute hepatitis, and he was suffering from this affection when I was first consulted on the 22nd January, 1892. The inflammatory disturbance in the liver gradually subsided, and the general enlargement of that organ disappeared; but owing to the blood supply to a certain portion being cut off, a necrotic patch resulted, which ended in a localized collection of pus.

For a time this remained quiescent, but later on an effort of nature to eliminate the effete material caused fresh constitutional and local disturbance, which was speedily terminated by having recourse to the scalpel and drainage tube. The extreme rapidity of recovery after opening the abscess is worthy of note, and the sudden cessation of all troublesome symptoms after the operation was most marked and gratifying.

Almost all individuals who have had abscess of the liver have at one time or another had something of a malarial nature, but the case I have recorded illustrates an exception to the rule. From the evidence obtainable, one is led to conclude that there are two kinds of tropical abscess, the multiple and the single. The former appears to be more a pyæmic condition, the latter an advanced stage of attacks of hepatitis. Some maintain that dysentery is the cause, others the result, and others an accidental concomitant of liver abscess. It is a generally accepted fact that if a patient with an abscess of the liver be passing dysenteric stools or much mucous discharge with his motions, the chance of his recovery when the pus is evacuated is very much diminished.

I would draw attention to the persistent diarrhœa in this case, which continued with hardly any interruption for 5 months in spite of careful treatment, but immediately the pent up pus was liberated this troublesome symptom ceased; and in spite of the grave prognosis such a condition would warrant, a satisfactory result was brought about.

The character of the pus met with on first opening a tropical abscess of the liver varies considerably; sometimes it is creamy pus, but more frequently it is chocolate-coloured, as in the case under notice. Afterwards it is uncommon for true pus to escape if the abscess is kept really aseptic, but the discharge consists of a thick, tenacious, dark mass of mucous mixed with clots of blood and more or less bile-stained, while later on there is often a copious discharge of thin watery fluid, sometimes colourous, sometimes mixed with bile. In rarer instances a very considerable discharge of actual bile takes place, either soon after the opening is established or at some period during the after treatment. In my case remarkably little discharge of any kind came away after the operation.

In this connection I might allude to remarks made by Fontan in a paper on the treatment of abscess of the liver, published in the *Revue de Chirurgie* for February, 1892. He maintains that simple incision and drainage should be supplemented by scraping the necrotic shreds away which always line the walls of the abscess cavity. This scraping, he states, should be performed with a blunt curette, guided by the surgeon's left index finger. He quotes two cases thus treated with good results, and he holds that the danger of serious hæmorrhage is not increased by the form of interference advocated by him, while it favours a rapid and complete cure. Pozzi condemned this suggestion, and in his opinion curetting would be welcomed as an advance by few surgeons, as it stands to reason that the risk of hæmorrhage and of opening biliary passages must be increased.

Dr. Rivas, a practitioner in Chili who has had large experience in the treatment of hepatic abscess, in an elaborate article which he has published on this subject, endorses Fontan's opinion that the walls of the abscess cavity should be scraped in order to hasten the healing process. He recommends that in all cases a cure should be attempted by aspiration, and if this fails the abscess should be at once freely opened without waiting for adhesions to form. He washes the cavity out with boric ac. solu., but states that the quantity injected should never be greater than the amount of pus drawn off. Dr. Rivas quotes 27 cases treated by him surgically; 21 were cured and six died, results very different to the pre-Listerian times, when the mortality was 80 and 90 per cent., and many physicians, Eg. Budd and Martin, decided not to recommend active surgical interference.

The following rules are laid down by Mr. Rickman Godlee in his lectures published in the *British Medical Journal* for January, 1891:—

"Single abscess of the liver, whether tropical or not, must, if it approach the surface, be opened, the following precautions being adopted:—

"(*a*) If it present at the epigastrium, the presence of adhesions must be ascertained before incising the liver.

"(*b*) Strict antiseptic precautions must be throughout adopted.

"(*c*) The tube must be of large size and retained until all discharge ceases.

"If the abscess has burst into the lung, pleura, pericardium or kidney, and the position of an abscess be only suspected, and if the patient be losing ground, it is right to puncture the liver in the most likely situations, bearing in mind that though usually quite harmless, a slight amount of risk accompanies this very trivial operation. This rule applies to cases in which the abscess has ruptured into any of the cavities mentioned above. If on the other hand, whether the abscess has ruptured or not, there are no means of diagnosing the whereabouts of the matter, and the patient be not losing ground, the surgeon should hold his hand."

Dr. Manson, in a paper published in *The Lancet* of 23rd January, 1892, strongly advocates the advantages of his syphon apparatus, which he minutely describes. He claims that his method fulfils all important indications for the treatment of abscess. "The opening is large; the drainage efficient; asepsis is easily maintained, and the parts are kept at rest. Owing to the action of the syphon the lowest part of the abscess, from a draining point of view, is that in which the drainage tube opens. Additional advantages are the absolute bloodlessness, the relatively-small amount of shock, the security against the escape of pus into the peritoneal cavity, and the ease with which deep-seated abscess may be treated."

If the presence of pus in the liver has been ascertained and its situation demonstrated by the exploring needle, the operation of hepatotomy is now generally adopted before adhesions have formed, the liver being sutured to the edges of the incision in the parietes. If it is necessary to open an abscess in the upper portion of the right lobe of the liver, it must be approached from the side, and the incision should be below the normal line of the pleura if possible, *i.e.*, not more than two inches above the margin of the ribs in the mid-axillary line. If it is necessary to make the opening higher up than this, then pleura and peritoneum must be opened. The lung is pushed out of the way by the enlarging liver. When the pleura is opened and no adhesions are present, the diaphragm must be stitched at once to the costal pleura. Undoubtedly the difficulty of stitching the liver to the diaphragm would be great, but through a large opening in the chest wall this might be done, and ought to be attempted.

CASSELL'S YEAR-BOOK OF TREATMENT FOR 1893 will arrive about the middle of March. Orders are now being received by L. Bruck, 13 Castlereagh-street, Sydney.

MR. BRUCK can supply *The Lancet* from January 1, 1893, English date, at 42s. p.a. in Sydney, and 45s. postage paid, to all parts of Australia.

ABSCESS OF LIVER.

BY W. T. HAYWARD, M.R.C.S., ETC., HON. PHYSICIAN ADELAIDE HOSPITAL, AND LECTURER CLINICAL MEDICINE ADELAIDE UNIVERSITY.

◆

I GLADLY avail myself of the invitation of the Honorary Secretary to contribute to the subject of discussion this evening by recording cases of abscess of the liver that have come under my notice. The cases themselves, I am aware, are of little value, but taken in connection with those that will be brought forward by other members they may help to afford food for discussion, and the record of a series of cases may prove of value to anyone who at a future time may wish to investigate this interesting subject. I am indebted to my friend, Professor Watson, for looking up the *post-mortem* notes; the clinical notes in abstract I have taken from the case books of my wards in the Adelaide Hospital. I fully recognize their insufficiency; my excuse must be that the cases occurred before our wards were utilized for clinical teaching.

CASE I.

Jas. D., aged 63, shepherd; born in Ireland; seventeen years in colony; admitted into Adelaide Hospital November 21, 1885. Complains of pains in back, neck, chest and head. Has been subject to rheumatism for last six or seven years. Five days ago became suddenly ill, suffering from above-mentioned pains and difficulty of breathing; no cough. Had been drinking freely that day and has been in the habit of drinking for years. Tongue coated and white; bowels confined; temp. 100°. No definite symptoms apparently developed, there being only a record of a series of rigors occurring about every second day. The bowels were fairly regular, no diarrhœa at any time. Temperature of hectic character, varying from 97·4° to 104·2°. He died on January 7, 1886. Duration of disease about 8 weeks.

Post-mortem: Peritonitis; plugging of portal vein; multiple abscesses in liver from size of grain of maize to that of walnut.

CASE II.

Thos. McG., aged 19, gardener; residence, Norton's Summit; born in colony; admitted into Adelaide Hospital, December 9, 1885. Eight days ago pains set in in abdomen with diarrhœa, followed by vomiting. Rigor on second day. Has been ailing since but able to get about—the diarrrhœa continuing. Temp. on admission 101·4°; evening 104.2°. Hectic temp. throughout illness varying from 97° in the morning to 105° in the evening. Pain apparently very slight, only noted once. Slight jaundice on December 16, which rapidly increased. No diarrhœa after admission; stools noted as consistent and pale. Tongue tremulous, thickly coated at commencement of illness; dry and clean at termination; occasional rigors and profuse diaphoresis.

December 17.—Liver dulness reached to line of nipple, but does not descend below costal margin.

December 31.—No hepatic enlargement; abdomen somewhat distended and tense.

December 25.—Enlargement of splenic area of dulness. On December 31 a medium-sized aspiration trocar inserted into right lobe of liver in two places; a little blood only withdrawn.

January 2.—A small area of dulness under right costal arch in epigastrium.

January 7.—Aspirated in 7th interspace in right back; 5 oz. of dark-yellow fluid withdrawn. In 8th space also; no fluid. Patient died on January 10.

Post-mortem: Hydro-hæmothorax; adhesion of liver and right lung to diaphragm; no microscopic intercommunication; multiple bile-stained hepatic abscesses up to size of pigeon's egg; large effusion in peritoneum containing flakes of fibrin; no ulceration of intestine.

CASE III.

John B, aged 30, laborer, resided at Callington; 9½ years in colony; born in England; admitted to Adelaide hospital January 13, 1886. Three weeks ago was seized with diarrhœa, caused, he thinks, by drinking putrid water; this has continued ever since. There has been no tenesmus, but he has passed blood several times. Has not been confined to bed, but has been unable to work. On admission, temp. 100°; evening, 101°; tongue coated and dry; appetite fairly good; bowels loose; no pain in belly; no spots. Diarrhœa continued more or less throughout illness, but it was unaccompanied by pain or tenesmus. The temp. ranged from 98° in the morning to 102° in the evening, the average evening exacerbation being about 2°. Patient became emaciated and died on February 16, 1886.

Post-mortem Note: Chronic dysentery, with ulceration of bowel. Large abscess in right lobe of liver with dirty brown pus.

CASE IV.

Peter J., aged 50, groom, residing at Willowie; 15 years in colony; born in England; admitted into Adelaide Hospital July 1, 1885. Complains of spitting of blood and severe cough. Ill 4 or 5 weeks. Pneumothoracic signs well marked. July 8, continues to be a good deal distressed; still spitting blood; a very short grating murmur before first cardiac sound.

July 16.—Copious, thin, brick-coloured sputa; temp. normal; tongue moist; resp. 36; pulse 120; œdema of face and of left leg; skin over right hip tender. Patient died July 21, 1885. Evening temp. during first five days reached 101°; was never above normal after the ninth day. Evening temp. always 1° higher than morning.

Post-mortem Note: No ulcers found in bowels. Upper surface of right lobe of liver adherent to diaphragm and containing a cavity, if anything, smooth-walled, about the size of a fist; contains yellow pus without bile or blood staining. The right pleural cavity contains a quantity of air (or gas) and 11 cupfuls of brick-coloured pus. The lung had been adherent at its base to diaphragm when it had been torn away; the abscess cavity in liver communicated with right pleural cavity through this hole.

Case V.

Mr. T., aged 52, contractor; born in England; resided in colony for 34 years; strong, well-built muscular man; abstemious habits; suffered occasionally from abdominal pain, referred to region of navel. Two years ago it necessitated him remaining home from business for four days; diarrhœa was generally coincident with pain. Had a rather severe fall 18 month ago, but stiffness and pain in right arm was the only result. With above exceptions has had no previous illness. About the middle of January, 1892, whilst residing at Glenelg, patient was suddenly seized, without any apparent cause, with a severe pain in abdomen, accompanied with diarrhœa. He was, however, able to continue his employment, though from that time he never felt well. He suffered from occasional diarrhœa, a feeling of depression, loss of appetite, and he noticed that he was losing flesh; colicky pains in abdomen, chiefly about the navel, were fairly persistent. He had no vomiting and no shivering. He was obliged to give in on March 1, when he began to pass badly-smelling, blood-stained, slimy stools, accompanied by considerable tenesmus. He returned to his home at St. Peters on March 10, and on the 16th he placed himself under my care. He was then suffering from considerable prostration, anorexia and slight diarrhœa; his temp. was 101°. There was no abdominal pain or tenderness, and on careful physical examination I could detect nothing abnormal. There was no headache nor any blunting of the mental faculties, the tongue was somewhat coated and he complained of thirst. Under treatment the diarrhœa ceased, and the bowels were inclined to be constipated till the termination of the illness. The temp., however, remained persistently above the normal, registering about 100° in the morning and about 101° towards the evening. After about a fortnight I noticed that the area of hepatic dulness was apparently increasing upwards, but there was not the slightest pain or tenderness on pressure over the region. About the middle of April he found that he could not lie on his right side; he complained of a dragging sensation.

On April 25, Dr. Verco saw the case in consultation; there was then considerable bulging of the hypochondrial region, general and uniform; the hepatic dulness extended from the level of the nipple to an inch below the costal margin, the edge of the liver being felt to be regular. A sense of deep fluctuation was also thought to be felt. The enlargement of the liver had increased rapidly during the previous few days. The temp. at this time remained as before, and there was no pain or tenderness; neither was there any rigor or sweating. The patient and his friends were very adverse to any surgical proceeding, and it was not till May 4 that I was permitted to aspirate. On that day I inserted a trocar in the eighth interspace, and it passed directly into a large cavity, and a few ounces of thick yellow pus were withdrawn.

On May 6 I made an incision in the same space midway between the mamillary and ant-axillary lines and cut into the abscess cavity, a very thin layer of liver substance only intervening; the walls of the cavity were ragged. I inserted two drainage tubes and evacuated between one and two pints of laudable pus. Much relief resulted from the operation, and all went well for a few days, but at the end of the week I found that the discharge was still very profuse and began to smell; the wound also became covered with a greyish-coloured slough. Drainage not being as good as I wished, I enlarged the wound on May 12 for the purpose of inserting the drainage tube at a lower point, and in so doing I severed a blood vessel, the hæmorrhage from which caused me a great deal of trouble, and caused a loss of blood that the patient was ill able to afford. Profuse diarrhœa set in with considerable sweating on May 14, and the patient gradually sank and died on May 16. No *post-mortem* examination was made.

I may be permitted to make a few remarks anent these cases. Case 1 was one of multiple abscesses. Judging from the absence of diarrhœa and dysentery, and the presence of rigors and the blocking of the portal vein, I should say that it was of pyæmic origin, the initial cause not being discovered.

Case 2, also one of multiple abscesses, also pyæmic. I account for the presence of hæmothorax by the fact that the day before the patient's death I aspirated in the 7th interspace and withdrew a small quantity of fluid, but being unsatisfied with the result I again aspirated in the 8th space, and probably injured the lung.

In Case 3—a case of single abscess—from the clinical history and *post-mortem* appearances the patient had suffered from dysentery prior to his admission to the hospital, though persistent diarrhœa was the only symptom after.

In Case 4, also a single abscess, there was neither clinical history nor *post-mortem* signs of dysentery or diarrhœa having occurred. In this case I would venture the hypothesis that there was originally a localized hepatitis, due to some unknown cause, which gradually broke down, forming an abscess; that this abscess, making its way to the surface, as it is well known such abscesses sometimes do when they discharge through the lung, set up a low inflammatory condition, implicating the diaphragm and the lower lobe of the lung; and that owing to a sudden impulse, say a violent fit of coughing, the lung became detached from the diaphragm, allowing some of the contents of the hepatic abscess to be discharged into the pleural cavity, setting up a pleuritis. It will have been noticed that whereas the pus in the abscess was yellow, the contents of the pleural cavity were of a brick-red colour. Another, and perhaps a more feasible explanation, is that in addition to the original hepatic abscess there was a secondary one in the base of the right lung. In support of this view I would draw attention to Case 77 reported by Murchison in his lectures on "Diseases of the Liver."

Case 5 was probably one of a single abscess, though this was not verified by *post-mortem* examination. It is interesting, owing to the question it raises: Was the dysentery that was undoubtedly present the cause of the hepatic abscess or merely coincident with it? The clinical history points to the presence of some form of abdominal trouble eighteen months prior to the fatal illness; also, that while diarrhœa and some anomalous symptoms were present during the early stages, dysentery was not developed till at least six weeks after; but on the other hand the febrile symptoms and the enlargement of the liver did not show themselves till after the dysentery had passed away.

Looking at the whole question broadly it is seen that we have two varieties of hepatic abscess, the multiple, probably of pyæmic origin, and the single; and that the latter, which is generally supposed to be confined to persons residing, or who have resided, in tropical countries, may affect people who have only lived in temperate climates, that is, if we may place South Australia in that category. Clinically, we must bear in mind that the single abscess may develop either with, or subsequent to, dysentery, or independent of it; that its onset is insidious; that we may have a large abscess forming without any pain, and with none of the symptoms so characteristic of the formation of pus, and that therefore it behoves us to be on our guard. As to the treatment of this disease, my experience is too limited to allow me to dogmatize, but I cannot think that it should be otherwise to that we adopt in all other cases in which we know pus to be present.

A SHORT RECORD OF OPERATIVE INTERFERENCE IN THREE CASES OF HEPATIC ABSCESS.

By B. POULTON, M.D., M.R.C.S.

◆

MR. PRESIDENT AND GENTLEMEN,—With your permission I shall make some short reference to a few cases of hepatic abscess, a disease not infrequent perhaps, in temperate Australian latitudes, but rare as compared with the incidence of hydatid cysts.

J. S., *æt.* 45, a commercial traveller, residing in Adelaide, had been ill eight days, and came to the hospital on December 6, 1889, for pain and swelling in the epigastrium.

The swelling had increased very rapidly, and on appearing in my ward a few days after his admission was very prominent and distinctly fluctuant, the overlying skin being red.

The notes as to the extent of liver dulness are wanting. There was dulness of the left axillary and subaxillary regions, with œdema of the skin. Friction sounds could be both heard and felt. The friction sounds extended round to the cardiac area. The acid urine of specific gravity, 1025, contained no albumen. His breath was fœtid; the alvine dejecta fluid appeared to contain blood, and up to six evacuations daily. The temperature ranged from 98·8 to 101·8.

On December 19 I made an incision in the linea alba over the swelling, and evacuated a quantity of stinking pus and shreddy fragments of liver tissue. The capsule of the liver was closely adherent to he parietal peritoneum; the abscess cavity was two and a half inches deep, with irregular eroded walls. After careful irrigation a drain was inserted and the wound covered with alembroth gauze. He was delirious on the evening of the second day; his breathing short and laboured; his pulse weak. The signs of pleurisy were extending, and he died during the early morning of the third day.

Post-mortem.—The liver was found to be greatly enlarged and studded with abscesses, its capsule thick and adherent to the surrounding structures. There was extensive plastic peritonitis; the pleural cavities contained an excess of fluid, notably the left; the lungs showed some collapse at their bases, and the pericardium was full of clear fluid. The kidneys were fairly healthy; the spleen, which was adherent to the liver, appeared healthy. Nothing abnormal was noticed in the intestines except a thickening and pigmentation of the walls of the colon. No ulcers were found.

Here there was diarrhœa, but no ulceration; a history pointing to rapid onset, though probably the disease was by no means recent. The acute inflammation of three serous membranes and the large number of hepatic abscesses are suggestive, but not proof positive, of a pyæmic process. Operative interference came late; a free incision three weeks earlier, when the swelling was first noted, had been preferable.

The following case, which also terminated fatally, may be mentioned, although the lung was the site of an extensive abscess, and during life the condition of the lung and pleura attracted most attention. In fact it was diagnosed as hydatid of the lung infecting the pleural cavity secondarily. The patient had been ill about six months before coming under observation; improved very much for some weeks after drainage of the pleura, but died about three weeks after a second operation. No hydatid remains were found in the lung or liver, and I did not so thoroughly examine the discharges for the dry fungus of actinomyces as I should now do.

E. L., a labourer, born in London; resident in the colony for 26 years; was admitted under Dr. Lendon's care on June 20, 1890. He had been ailing six months; had coughed for four or five months, and expectorated blood two months before. He complained of persistent pain in the right side, aggravated by coughing. There was pyrexia and marked dulness on percussion of the right side of the chest in front as high as the second rib in the axillary region, and at the right base. There was diminished respiratory murmur, vocal resonance, and vocal fremitis over the dull area.

He was transferred to my ward early in the following month, and I opened the chest in the subaxillary region after resecting a rib. A quantity of curdy pus was evacuated, but no membrane; the diaphragm was examined with the finger, and the cavity was found to extend upwards and backwards; no perforation of the lung or liver was discovered.

The temperature fell for two weeks; the discharge was peculiarly blood-stained and shreddy, and the mucopurulent sputum was also often blood-stained. He got up at the end of a fortnight, ate well, and had a general feeling of well-being until the third week in August, when the temperature ran up to 102 and the discharge increased in quantity and became blood-tinged again.

Not to weary you with close details, I may say that his condition became gradually more grave, the pyrenia continued, signs of consolidation of the lung were manifest, and although the hæmoptysis subsided the discharge of pus increased, and after consultation I opened up the first incision, removed more rib, and made a counter opening in the axilla, evacuating a quantity of pus and flaky lymph; a large cavity was opened up in the lung extending from the second to the seventh rib, and penetrating about 2½ inches. The cavity was douched out, drained, and dressed with iodoform gauze.

There was no improvement in the general condition and the purulent discharge continued to be profuse, the evening temperature, however, ranging lower until a few days before death, which took place three weeks after the second operation.

Post-mortem.—Professor Watson found the abscess cavity in the right lung communicated by a perforation of the diaphragm with a collapsed abscess in the upper part of the right lobe of the liver. There was a second hepatic abscess towards the under surface of the right lobe, and a third in the left lobe; the walls of these abscesses were irregular and ragged. There were no splenic or kidney abscesses, and no intestinal lesions.

In this case the liver was probably first affected, though its condition did not attract early attention and was masked on his admission by the gravity of the thoracic lesions.

Some years ago I treated an elderly man for ozœna. He developed an abscess of the liver, which protruded in the right hypochondrium below the ribs. Without an anæsthetic I cut down to the transversalis fascia, kept the wound open with a fledget of lint, and poulticed, intending to incise the abscess in a few days, after adhesions had become firm; but on the second night the tissues gave way, and the abscess discharged itself, and the man made a good recovery in a few weeks.

Early and prompt exploration with the needle, followed by free incision, cleansing and drainage where possible, are undoubtedly clearly indicated in hepatic abscess; but there will always be a certain percentage of cases which come under notice only when abscesses are multiplied, or where neighbouring structures are extensively damaged by extension of inflammation or its products, so reducing the probability of permanent relief. A man may go about freely, and even work, with a large hepatic abscess on the point of rupturing. (See article by Inspector-General McPherson, M.D., in Quain's Dictionary.)

In investigating and treating cases of liver abscess one should always be on the lookout for degenerate hydatid cysts, especially remembering the occasional occurrence of the variety known as the multilocular hydatid, with its very small and crowded groups of cysts, not always easy of recognition, and peculiarly associated with degeneration and ulceration of the tissues surrounding them. I think, too, the pus in obscure cases, or better, in all cases, should be examined for actinomyces, which may affect the liver only (Fagge), and may reasonably be expected to affect men in a pastoral country where it is known to occur in horned cattle. Pus containing the fungus is said to contain minute brownish granules visible to the naked eye, and of course easy of recognition under the microscope.

ON HEPATIC ABSCESS.

By J. A. G. Hamilton, M.B.

◆

The only case of abscess of the liver I can call to recollection at the present moment was traumatic in its origin, and as traumatic suppuration of the liver is somewhat rare, I should like to read a few notes of this case :—

A. P., *æt.* 14, first seen on March 28, 1878.

History.—Had always been healthy; family history good; born in South Australia; never been out of the colony. About four months ago was thrown from a horse, pitching on right side with considerable violence on some loose stones; felt pain immediately in hepatic region. This gradually increased, and about two months ago noticed a swelling under edge of ribs; suffered great pain, especially when riding on horseback or in a trap.

On examination: Delicate, emaciated-looking boy; complexion a dirty yellow; conjunctiva stained; urine dark-coloured; bowels regular; stools pale in colour; abdomen generally swollen. On right side a well-defined swelling was noticed, extending from an inch below nipple to the level of umbilicus; veins prominent; intercostal spaces bulging; dull on percussion; tongue coated; temperature 103; pulse 116.

An exploring needle being inserted at the junction of the epigastric and hypochondriac region, pus was obtained. An incision was made at this point, and 23oz. of creamy pus was evacuated. The cavity was washed out and drained. The drain tube was removed on the twelfth day, and the boy was discharged on April 28, having rapidly improved and gained flesh.

I have little doubt from the history that the abscess in this case was of traumatic origin. There was no cyst, and the pus was carefully examined for hooklets; and as abscesses of the liver as the result of external violence are exceedingly rare, I thought this case worth recording.

QUEENSLAND MEDICAL ASSOCIATION.

◆

A Society has been formed in Brisbane with the object of becoming a branch of the British Medical Association, and with the kindly help of Dr. A. L. Kenny, of Melbourne, all the necessary steps for the attainment of the object have been completed. The membership at present numbers thirty-two (32), three of whom are members of the British Medical Association.

The first regular general meeting was held on January 12th. There were present: Drs. Taylor, Ellison, Jackson, Hirschfeld, Comyn, Lyons, Connolly, Kent, O'Doherty, and P. Bancroft.

Dr. Ellison was voted to the chair. The minutes of last meeting having been read and confirmed, the election of office-bearers was proceeded with and resulted as follows :—President: Hon. W. F. Taylor, M.D., M.L.C. Vice-President: Hon. C. F. Marks, M.D., M.L.C. Hon. Treasurer: E. S. Jackson, M.B. Council: J. C. Ellison, M.B., W. Lyons, M.R.C.S., F. G. Connolly, M.R.C.S., E. O'Doherty, L.R.C.S. Hon. Sec.: Peter Bancroft, M.B.

Dr. Thos. Bancroft presented a series of photographs of leprosy, and a disease of the palms of the hands in Kanakas.

Pathological Specimens.

Dr. **Hirschfeld**—Several intestinal specimens.

Dr. **Peter Bancroft**—(*a*) Specimens of intestines of the usual form of infantile chronic atrophy. (*b*) Perforation of appendix vermiformis.

Living Exhibits.

Dr. **Taylor**—Paresis of left oculomotor nerve.

Dr. **Jackson**—Repeated fracture of the patella. The patella in this patient had been refractured transversely and below a previous fracture, which had resulted in an apparently weak fibrous union, but which proved strong enough to permit refracture of the bone.

Dr. **Jackson** read notes on two interesting cerebral cases: (*a*) Tumour of the pons varolii. (*b*) Abscess of the meninges pressing upon the temporo-sphenoidal lobe.

Drs. **Taylor**, **Connolly**, and **Hirschfeld** joined in the discussion.

The second general meeting of the Queensland Medical Association was held on Thursday, February 16th, when there were present: Drs. Taylor (President) in the chair, Jackson, Mayne, O'Doherty, and P. Bancroft (Secretary).

Owing to the extremely wet weather, the intended inaugural address of the President was postponed.

Dr. **Taylor** exhibited a patient on whom he had very successfully operated for severe ectropion of the lower eyelid, caused by destruction of skin by caustic soda, by transplantation of skin, and read the following notes of the case :—

TRANSPLANTATION OF SKIN FOR ECTROPION.

By W. F. Taylor, M.D., M.R.C.S.E., Ophthalmic Surgeon, Brisbane Hospital.

◆

Catherine Healy, aged 15 years, was admitted into the Brisbane Hospital on January 12th, 1893, suffering from ectropion of the right lower eyelid. About a month previously she was playing with another child who rubbed some caustic soda on the skin of the lower lid. Sloughing took place, which ended in considerable destruction of tissue, and the formation of a cicatrix which completely everted the lid and bound it down to the cheek. On January 17th the following operation was performed with the view of restoring the eyelid.

When fully under the influence of chloroform, the eyelid was freed by an incision through the cicatrix along the tarsal margin about two m.m. from the eyelashes ; the cicatrix was completely dissected away, leaving a raw surface 3.5 c.m. long by 2.5 c.m. wide. The tarsal margins were denuded of mucous membrane, and the palpebral aperture closed to within 1 m.m. of the lachrymal puncta by sutures. A piece of skin 5 c.m. long by 3.7 c.m. wide was dissected from the inner side of the left forearm, all fat and subcutaneous tissue being carefully removed from it on a warm plate, and applied to the wound on the eyelid with silk sutures placed as closely together as the puckering of the transplanted skin would admit. Boracic powder was freely applied, a pad of gamger tissue being placed over it, and kept in place by a bandage. The dressings were removed on the 21st, when accurate union of the transplanted skin at the inner or nasal side was observed to have taken place. The dressings were changed on the 24th, 27th, and 29th, boroglyceride being substituted for powdered boracic acid. Owing to the redundancy of the transplanted skin, it was raised into a ridge at the lower border, where some appearance of dry gangrene was noticeable. The discoloured portion was cut away until some fine bleeding points appeared, and a few sutures at the nasal side removed. On February 6th the remaining sutures were taken away, the transplanted skin being firmly adherent at all points. On February 10th the palpebral aperture was restored by cutting through the adhesion between the tarsal margins.

The present appearance is that of a raised cicatrix. There is no sensation, but the blood supply is evidently ample, as the colour is gradually assuming that of the surrounding skin.

The main point of interest in this case is the large piece of skin which was detached, and which so rapidly accommodated itself to its altered position as to retain its vitality throughout almost its whole extent. It is recommended in such cases that the transplanted piece of skin should be half as large again as the part which it is intended it should occupy, so as to allow for its contraction. In this instance I do not think that there would have been any appearance of dry gangrene had the piece of skin not been so large as to form a ridge along the lower border, and thus interfere with the blood supply. It will be a matter of interest to watch the development of sensation in the transplanted skin.

LEADING ARTICLE.

THE PRESENT STATE OF THE MEDICAL PROFESSION IN AUSTRALIA, TASMANIA, AND NEW ZEALAND.

By LUDWIG BRUCK,
EDITOR OF "THE AUSTRALASIAN MEDICAL DIRECTORY AND HANDBOOK."

◆

ALL that has hitherto been said or written on this subject has been mere guess-work, or based upon the official medical registers issued annually in the various colonies, which, however, are notoriously incorrect for the principal reason that a very large number of medical men are registered in several colonies, and remain on the different registers whether they reside in the respective colony or not. If we take for example the New South Wales Register, issued in January of this year, we find that there are the names of 1,066 practitioners on the roll, of whom not less than 342 have left the colony and now reside in other portions of Australasia, or in other parts of the world ; this is irrespective of nine persons included in this list who have died, one of them having been dead for nearly 17 years. The Medical Board of Victoria endeavoured to rectify this anomaly to some degree by removing from the roll in 1891 the names of 176 practitioners who failed to communicate their addresses to the Secretary ; and on the New Zealand Register all those who do not reside within its territory have the notification "Left the colony" printed after their names.

This paper is based on the third edition of my "Australasian Medical Directory and Handbook," published in September last, which contains in alphabetical order only those practitioners who then resided in the Australasian colonies, or who, though at the time absent in Europe or America, intended to return to the colonies. As is well known, the changes of the profession in Australasia are very rapid, and some of the statistics quoted in this paper may not be quite correct at the present date ; however, it is a true picture of the state of matters medical in the Australasian colonies as it presented itself in September, 1892. As to the commentary notes in this paper, it will readily be admitted that my uninterrupted and intimate connection with the medical profession in Australasia for the last twenty years entitles me to speak with authority on all matters pertaining to this subject.

The total number of registered practitioners recorded in my Directory, excluding Fiji and other South Sea Islands, is 2,410, of whom 691 resided in New South Wales, 204 in Queensland, 181 in

South Australia, 812 in Victoria, and 40 in Western Australia, or a total of 1,928 on the Australian Continent; in Tasmania there were 93 practitioners, and in New Zealand 389, or a total of 2,410 throughout Australasia.

Of these 2,410 practitioners there were 171 who had no fixed abode; that is to say they were either travelling as medical referees to the various Life Assurance Companies, were absent on a visit to the old country, were doing *locum tenens* work, or were "waiting for something to turn up." Not less than 84 of these, or almost one-half of the total number of unsettled practitioners, are found in New South Wales, principally due to the fact that New South Wales is the colony in which the travelling medical referee system is most extensively carried on; even in dull times there are never less than 40 medical men travelling all over the colony, while in Victoria, which is more densely populated in proportion to its limited area, local practitioners are generally employed by the travelling agents for the examination of candidates for life assurance, and consequently we find only 48 unsettled practitioners in that colony; Queensland has 17 of these birds of passage, South Australia 7, Western Australia 1, Tasmania 5, and New Zealand 14.

Of the 2,410 practitioners in Australasia there are 291, or 12·07 per cent., who have graduated at Colonial Universities, viz., 222 at the Medical School of the University of Melbourne (opened in 1862), 47 at that of Sydney (opened in 1883), nine at the one in Adelaide (opened in 1885), and 13 at the University of Otago, N.Z. Those practitioners who have taken colonial degrees *ad eundem gradum* are, of course, not included. It must be assumed that these 291 colonial graduates are almost entirely natives of these colonies, and as there are quite as many Australians and New Zealanders who have pursued their studies in the old country and taken their degrees at some University in Great Britain, it follows that fully 25 per cent. of all colonial practitioners must be natives of Australia and New Zealand. There are nine ladies amongst the legally qualified practitioners, viz., five in Victoria, two in New South Wales, one in Queensland, and one in South Australia, four of them being the possessors of Australian degrees.

In proportion to the population we find that in New South Wales there is one medical practitioner to every 1,708 persons; in Queensland one to every 2,034; in South Australia one to every 1,796; in Victoria one to every 1,441; in Western Australia one to every 1,375; and on the whole Australian Continent one to every 1,631 persons; in Tasmania there is one to every 1,666, in New Zealand one to every 1,799, and throughout Australasia one practitioner to every 1,660 persons. We must, however, not overlook the fact that there are a very considerable number of persons, many of whom have had no medical training whatsoever, who practise medicine for gain in these colonies. In New South Wales alone, which has been styled "The Paradise of Quacks," we have upwards of 200 of such persons, or one to three in proportion to registered medical men in active practice. Melbourne and suburbs can boast of 14 so-called "Chinese doctors," who reside within the boundaries of "Greater Melbourne." These irregular medical practitioners of all nationalities are found in every part of Australia, though nowhere in such astonishing numbers as in New South Wales.

The proportion of medical men in Queensland to its population appears rather small, but that colony has such an immense area, and the population is so scattered, that many districts cannot support a resident medical practitioner; and the same remark holds good as regards South Australia, while in New Zealand the extreme salubrity of its climate accounts for the proportionately small number of medical practitioners, some districts being so healthy as to make medical practice unremunerative, only accidents and obstetric cases requiring medical advice. In Western Australia the Government subsidizes medical men in out-lying districts, which otherwise would have to remain without a resident medical practitioner, by appointing them to non-medical positions such as Resident Magistrates, Registrars, and other positions, in addition to that of District Medical Officer, at aggregate salaries varying from £100 to £400 per annum, which accounts for the apparent overcrowding of the profession in that colony in comparison with the other provinces, excepting Victoria, the smallest and most densely populated colony in Australia, where all unregistered persons using the designation of doctor, surgeon, physician, or any other title that may be construed to mean that they are legally qualified, are rigorously prosecuted, consequently the number of quacks in that colony is considerably smaller, and the number of registered practitioners proportionately larger.

I now take the capital cities of Australasia: Sydney proper has 139 medical men, or one to every 809 inhabitants; her suburbs support 112 medical men, or one to every 2,567 inhabitants, and the metropolis as a whole has 251 practitioners, or one to every 1,594 persons. Brisbane has 42 practitioners, or one to every 1,335 persons; its suburbs 18 medical men, or one to every 2,088 persons; and Brisbane with suburbs combined, 60 medical men, or one to every 1,561 persons. Adelaide has 43 medical men, or one to every 889 inhabitants; the suburbs 40, or one to 2,250 persons; and Adelaide with suburbs, 83 practitioners, or one to every 1,546 inhabitants. Melbourne has 110 medical men, or one to 659 persons; the suburbs 180, or one to every 2,375 persons; and Greater Melbourne 290 medical men, or one to every 1,724 inhabitants. Perth, the capital city of Western Australia, has 12 practitioners, or one to every 708 of its inhabitants. Hobart, the capital of Tasmania, has 29 practitioners, or one to every 1,172 persons, and Launceston, the principal city in the north of the little island, has 13 medical men, or one to 1,692 persons. Wellington, the capital of New Zealand, supports 30 medical men, or one to every 1,133 persons, and Auckland, the former capital, has 40 practitioners, or one to every 1,300 inhabitants. Other chief towns in the South Island are Christchurch, which can boast of 29 practitioners, or one to 1,655 persons; Dunedin with 33 medical men, or one to 1,394 persons, and Nelson, with one practitioner to every 831 persons; and in the North Island there is also Napier, with one to every 933 inhabitants. As regards other principal towns in Australia, we have in Victoria the important cities of Ballarat (with Ballarat East), with one medical man to every 2,000 inhabitants, Bendigo with one practitioner to every 1,588 persons, and Geelong with one medical man to every 1,600 persons. In South Australia there is Port Pirie, which had one practitioner to every 2,025 inhabitants. In Queensland I name Rockhampton, with one practitioner to every 1,958 inhabitants, Townsville with one practitioner to every 1,638 persons, Toowoomba with one practitioner to every 881 persons, and Charters Towers with one to every 581 inhabitants. In New South Wales there is Broken Hill with one to every 2,182 persons, Goulburn with one to every 1,571 persons, Bathurst with one to every 1,321 persons, Maitland (East and West) with one to every 1,312 persons, and Newcastle with one practitioner to every 929 persons. It will be noticed that the capital cities of Australia, in comparison with their suburbs, have three times as many practitioners in proportion to their population, which is due to various reasons: firstly, there are a number of specialists, and persons holding official positions in connection with the colonial and municipal governments, metropolitan hospitals, and Life Assurance Companies, who have to reside in the capital cities; then a number of the city practitioners have their patients in the suburbs, but prefer to reside in the cities to be easily accessible to the large number of country patients who constantly flock to the metropolis to obtain medical advice, or a second opinion in addition to that of their local doctor, or to undergo some operation; thirdly, a large proportion of the population of the suburbs belong to Friendly Societies, the members of which include many well-to-do people, such as shopkeepers, manufacturers, members of Parliament, officials, and others, who joined the lodges when they were in more straightened circumstances; and this of course restricts independent practice very considerably. For example, an important suburb of Sydney on the western shores of Darling Harbour, with a population of 24,000, has only eight practitioners in active practice, or one to every 3,000 persons, but then two-thirds of the total population belong to Friendly Societies; the Friendly Societies' Dispensary in that suburb alone has over 2,300 members, consisting, with their wives and children, of fully 10,000 persons, which are attended to by two medical men who divide £600 per annum, equal to 1s. 2½d. per head a year, for which magnificent sum the two medical officers have not only to attend them in sickness and accident, but they also have to perform minor operations, administer chloroform, and extract teeth. Another lodge in the same suburb, with about 500 members, pays 15s. per member a year to their medical officer, who, however, is not allowed to charge the usual extra fee of one guinea for midwifery cases, as these have to be attended to free of charge! This state of affairs exists all over Australasia, though not to such an unjustifiable extent, but even in sparsely populated Western Australia there are lodges, the medical officers of which are giving medical attendance *and supplying medicines* to members and their families at the rate of £1 per annum. The usual remuneration of club doctors in the larger towns varies from 12s. 6d. to £1 per member a year, for which amount the member's family has also, of course, to be attended to. In the smaller country towns the remuneration as a rule is 26s. per member a year, which includes medicines, bottles, and teeth extracting, and when the medicines are to be renewed the medical attendant has almost invariably to supply fresh bottles, which form a considerable item in the expenditure of a country lodge doctor; obstetric cases, as a rule, are extra, and the usual club fee for them is one guinea, which includes the after attendance. And yet, when such an undesirable and dependent position is advertised there is no lack of applicants. Quite recently when tenders were invited for attending the exacting members of three clubs in a town 70 miles from Sydney, there were not less than 42 applicants, and 22 tenders were actually sent in, some of the tenderers, cap in hand, personally soliciting the support of members of the committee, who in country towns generally consist of storekeepers, publicans, butchers, blacksmiths, and other tradespeople; the previous medical attendant of these very lodges found that, after deducting the cost of medicines and bottles supplied, he received 1s. 10d. for every consultation or visit within 10 miles, including mileage, during his last twelvemonths.

On looking over the statistics of the principal towns a striking contrast will be noticed in the number of practitioners in proportion to their population, some of the towns having two, three and four times as many practitioners as others. However, it must not be taken for granted that there are necessarily remunerative openings for medical practitioners in the latter towns. There are certainly towns, surrounded by a populated and flourishing district, well able to support a larger number of practitioners than other towns; but the discrepancy in most cases is a sure indication that that pernicious club system, which so greatly reduces the chances of medical men to practise their profession for a living, is more developed in such towns, though climatic conditions have also something to do with it, as even medical men are satisfied with a smaller income if they can live in towns with a fine climate like Toowoomba, Bathurst, Goulburn and Ballarat, or in a dry and exhilarating atmosphere like that of Charters Towers and Bendigo, than spend their best years in towns with a moist and enervating climate like Rockhampton or Townsville, or in a dust-laden atmosphere like that of Broken Hill.

The club system in Australia, and the unenviable life in most of the bush towns, which induce many practitioners to indulge to excess in alcohol and narcotics, are largely answerable for the appalling death rate amongst medical men in these colonies. The yearly average number of medical practitioners throughout Australasia during the last six years is 2,100, and the average number of deaths during the same period is 56 per annum, or 26·67 per 1,000, while the yearly average general death rate in the Australasian colonies varies from 10 in New Zealand to 16 in Victoria per 1,000 of the mean population, and throughout Australasia it is between 13 and 14 per 1,000, or just about one half of the death rate amongst medical men.

I was able to ascertain the ages of 312 of those practitioners who died during the last six years, and I find that—

44 (or 14·1 per cent.) died at the age of from 21 to 30 years
72 („ 23·4 „) „ „ 31 to 40 „
59 („ 18·7 „) „ „ 41 to 50 „
47 („ 15·2 „) „ „ 51 to 60 „
40 („ 12·8 „) „ „ 61 to 70 „
37 („ 11·6 „) „ „ 71 to 80 „
12 („ 3·9 „) „ „ 81 to 90 „
1 („ 0·3 „) „ „ 91 to 100 „

It will be seen that almost one-fourth of all deceased practitioners died from 31 to 40 years of age, or fully a fourth if I include those who died at the age of 30 years, and a total of 116, or 37.5 per cent. who died under 40 years of age.

As regards the incomes of medical men in Australasia a wrong impression exists in the minds of the public, who imagine that every medical man makes a fortune. The majority of medical practitioners in active practice make from £350 to £1,200 a year, though a considerable number, perhaps 7 per cent. or about 170 practitioners throughout Australasia, make from £1,200 to £2,000, 2 per cent. or about 48 practitioners from £2,000 to £4,000, and a very few from £4,000 to £6,000 a year. In former years, when times were better and competition less keen, some made from £6,000 to £10,000 a year, but at the present time there is, in my opinion, not one single practitioner who takes more than £6,000. The average yearly income is probably between £700 and £800 a year, which is not out of the way, considering that the rents and wages are considerably higher in the colonies, not taking into consideration the loss of many advantages, social and otherwise, enjoyed in the more civilized regions of Europe and America. Of course the incomes here referred to are the actual *cash* returns, as with few exceptions a medical man in the colonies receives payment for only two-thirds, or at the outside, three-fourths of the work performed by him.

The subjoined comparative table shows at a glance the various colonies and some of their principal towns, their estimated population, the number of resident medical practitioners, and the proportion of medical practitioners to the population:—

	Area in Square Miles.	Estimated Population on Sept. 1, 1892.	Number of Resident Registered Practitioners on Sept. 1, 1892.	One Practitioner to Number of Population.
New South Wales .	310,938	1,180,000	691	1,708
Queensland ...	668,497	415,000	204	2,034
South Australia ...	903,690	325,000	181	1,796
Victoria	87,884	1,170,000	812	1,441
Western Australia .	1,060,000	55,000	40	1,375
AUSTRALIA ...	3,031,009	3,145,000	1,928	1,631
Tasmania	24,330	155,000	93	1,666
New Zealand ...	104,403	700,000*	389	1,799
AUSTRALASIA ...	3,159,742	4,000,000	2,410	1,660

* Including about 41,500 Maoris.

	Estimated Population on Sept. 1, 1892.	Number of Resident Registered Practitioners on Sept. 1, 1892.	One Practitioner to Number of Population.
Sydney, N.S.W.	112,500	139	809
Suburbs of Sydney	287,500	112	2,567
Sydney with suburbs ..	400,000	251	1,594
Newcastle, N.S.W.	13,000	14	929
Broken Hill, N.S.W. ...	24,000	11	2,182
Maitland, N.S.W.	10,500	8	1,312
Bathurst, N.S.W.	9,250	7	1,321
Goulburn, N.S.W.	11,000	7	1,571
Brisbane, Q....	56.075	42	1,335
Suburbs of Brisbane ...	37,582	18	2,088
Brisbane with suburbs ...	93,657	60	1,561
Toowoomba, Q.	7,050	8	881
Charters Towers, Q.... ...	4,650	8	581
Rockhampton, Q.	11,750	6	1,958
Townsville, Q.	8,600	6	1,633
Adelaide, S.A.	38,240	43	889
Suburbs of Adelaide ...	90,000†	40	2,250
Adelaide with suburbs ...	128,240	83	1,546
Port Pirie	4,050	2	2,025
Melbourne, Vic.	72,500	110	659
Suburbs of Melbourne ...	427,500	180	2,375
Melbourne, with suburbs ...	500,000	290	1,724
Ballarat, Vic.	42,000	21	2,000
Bendigo, Vic.	27,000	17	1,588
Geelong, Vic.	24.000	15	1,600
Perth, W.A.	8,500	12	708
Hobart with suburbs, Tas....	34,000	29	1,172
Launceston, with suburbs, Tas....	22,000	13	1,692
Auckland with suburbs, N.Z.	52,000	40	1,300
Christchurch, with suburbs, N.Z.	48,000	29	1,655
Dunedin, with suburbs, N.Z.	46,000	33	1,394
Wellington, with suburbs, N.Z.	34,000	30	1,133
Napier, N.Z.	8.400	9	933
Nelson, N.Z....	6,650	8	831

† Approximately.

FOR SALE.—An Old-established Unopposed Practice in the North Coast District of New South Wales; Cash Income £700 a year, including £200 from Clubs; Good House, rent 16s. a week; price for furniture, drugs, buggy, two horses and goodwill only £250. L. Bruck, Medical Agent, 13 Castlereagh-street, Sydney.

LETTER TO THE EDITOR.

KISSING THE BOOK.

(*To the Editor of The Australasian Medical Gazette.*)

SIR,—In a recent police court case I, when about to give evidence as a witness, asked the Bench that I might be excused from kissing the Book and take the oath as practised in England by holding up the right hand, to which the P. M. replied it was necessary to kiss the Book, except in cases of conscientious scruples to the contrary, adding, "it is *the law* in this colony."

Not being an authority on legal points, I waived my objection, under mental protest, however, as I always understood that there was no colonial Statute in this case contrary to the British enactment, which is as follows (*vide British Medical Journal*, December 24). The fifth section of the Oaths Act declares without any qualification that "if any person to whom an oath is administered desires to swear with uplifted hand in the form and manner in which an oath is usually administered in Scotland, he shall be permitted to do so, and the oath shall be administered to him in such form and manner without further question." (51 and 52 Vic. c. 46, s. 5.)

I should be glad if you could inform me whether there is any colonial Statute at variance to the above, or whether when taking an oath it is in all cases necessary to kiss the Book?

My objection was entirely on sanitary grounds, which readers of the *British Medical Journal* will know has been endorsed by, and is causing much controversy amongst, medical men in England. I should be glad, therefore, of your opinion as to the legality or otherwise of my request.

I am, yours, &c.

A. FORBES, L.R.C.S.E., &c.

Wardell, Richmond River,
February 4, 1893.

[Until some authoritative ruling is given on the subject by the Supreme Court we fear that it is necessary for witnesses to actually kiss the book when taking an oath. For ourselves, we may say that we minimize the evil by invariably choosing what is probably an uncontaminated page. To do this we let the Bible fall open and then turn over a single leaf, which being next to one in the habit of falling open, has, it is likely, never been exposed before. In England, by a recent rule it is now unnecessary to kiss the book, the right hand being held up instead. This is also the practice before a notary in the United States, and we believe that in the courts there, though the book is nominally kissed, the actual contact of the lips is not insisted on. Kissing a much-used Bible is undoubtedly an insanitary proceeding.—ED. *A. M. G.*]

ELEVENTH INTERNATIONAL MEDICAL CONGRESS, ROME, 1893.—We have been requested to insert the following announcement:—"The Presidency of the provisional Committee of the Eleventh International Congress of Medicine, which will be inaugurated in Rome on the 24th September 1893, has been asked during the last time by many pharmacians if they are admitted to have a part in the works of the Congress. We have been now informed by the President that, in consonance with the articles 3 and 17 of the General Regulations, all pharmacians may be inscribed as members of the Congress, and that there exists also a special section directed by a Committee composed of the most distinguished Professors of Pharmacology."

STRYCHNINE IN SNAKEBITE.

WE have received the last issue of the *Journal of Transactions* of the Victoria Institute, or Philosophical Society of Great Britain, containing a paper read by Sir Joseph Fayrer, K.C.S.I., LL.D., M.D., F.R.S., "*On Serpent Worship and on the Venomous Snakes of India*," to which is added "*The Discussion and a Special Statement by Augustus Mueller, Esq., M.D.*," and the following *Note by the Editor*:—

"All will recognize that Dr. Mueller's statements are specially worthy of attention, and it is a subject for general congratulation that he has already gone so deeply into the task of seeking to give the world a remedy for a great evil. As regards the remarks in the third paragraph of his communication, it is held that both viperine and colubrine venom are not nerve poisons, but blood poisons too, especially viperine. With respect to Feoktistow's experiments, the reptiles referred to are all viperines and not colubrines. The poison of these differ in their action.

"In India the greatness of the need of some remedy for snakebite has caused a large number of cures for the evil to be proclaimed as useful, among them the remedies mentioned in paragraph 11, and including that of strychnine, but it has been urged that its use has not proved successful there; this may perhaps be attributed to the fact that the remedy has not been so carefully used nor with that thorough acquaintance with its proper application that Dr. Mueller's experiments have shown to be so necessary, but it is known that Sir Joseph Fayrer (President of the Medical Board at the India Office) has very lately recommended to the authorities that it should be tried again; but in dealing with the subject it must be borne in mind that, as a rule, Australian snakes are less venomous than those in India, at least Indian medical men have come to that conclusion."

The Editor also adds the following postscript:—

"The results of the adoption in India of the recommendation of the President of the Medical Board at the India Office in regard to the cure so ably advocated by Dr. Mueller will be published by the Victorian Institute on the receipt and issue of the Annual Indian Medical Reports by the India Office."

[IT is extremely gratifying to find that a discovery so essentially Australian has been accepted and acted on by the Imperial and Indian authorities. We are confident that extended use can only result in increased confidence being placed in the remedy when promptly and efficiently used.—ED. *A. M. G.*]

(From the *Yackandandah Times*, February 18th, 1893.)

"SNAKEBITE AT GUNDOWRING—Another case of snakebite, very similar to that one reported last year of Mr Trebilcock's daughter, occurred on Sunday evening last to a daughter of Mr J. Heffernan, aged 14 years. Whilst the girl was walking after dark on a narrow path to a spring for a bucket of water, a large snake (on the tail of which she probably had trodden) flew up viciously and bit her through a thin muslin dress on the point of the left shoulder. This was a dangerous spot, as a ligature could not be applied there efficiently. The punctures, however, were deeply cut by a neighbour, Mr H. Keats, and Dr. Mueller was at once sent for. In the meantime the symptoms became somewhat threatening, the shoulder swelling rapidly, and the girl becoming so drowsy that she could hardly be kept awake. As six or seven hours would elapse before the doctor could be expected, an antidote case was procured from a neighbour, and the strychnine treatment applied vigorously according to the printed directions accompanying every case. The effect of every injection after the first one was most conspicuous. The swelling of the shoulder went down, and the girl became quite cheerful and lively. After a while she sank back into drowsiness and had to be roused by a fresh injection, until after the fourth one she complained of stiffness of the lower jaw and slight quivering of the muscles of the neck. The injections were then discontinued, and, in fact, no longer required, for the snake poison appeared to be effectually subdued, and the girl remained well until the doctor arrived between two and three o'clock. Finding that one-third of a grain of the antidote had been used, and that there were no symptoms indicating a further want of it, Dr. Mueller watched the case for some hours, and having satisfied himself that there was no tendency to relapse, left the girl in charge of her relations with strict directions how to proceed in the case of the insidious poison making a fresh onslaught. Very little alcohol was given, the girl having a great aversion to it, and the fact of its uselessness in snakebite being known to the parents. The great boon which has been conferred on our settlers in the bush by placing the antidote into their hands is once more illustrated by this case. The girl might have been dead before the doctor reached here. At any rate her condition would have been a most critical one if the deadly poison had been left unchecked for seven long hours to commit its ravages on her delicate young organism, not to speak of her sufferings and the anxiety and sorrow of relations and friends."

From the *Sydney Morning Herald* of Saturday, February 25:—

"WAGGA WAGGA, Friday.—Miss Preston, the eldest daughter of the licensee of the Merool Creek Hotel, was a few days ago bitten by a black snake just above the ankle. The wound was scarified and sucked, and the young lady was taken a considerable distance for medical treatment. Whilst being conveyed in a buggy the horses bolted, causing considerable delay. Miss Preston was in a state of collapse when the doctor was reached, but the strychnine remedy was applied, and after the second injection she showed signs of recovering. Now she is only suffering from shock to the system. But for the prompt measures taken in the first instance, it is probable that Miss Preston would have succumbed."

DR. MUELLER sends us the following two letters from Mr. H. Henshall, pharmaceutical chemist, Seymour (Vic.), and from Mr. G. Ph. Gehrig, proprietor of a vineyard at Barnawartha (Vic.):—

"Seymour, February 20, 1893.

"My dear DR. MUELLER,

"On Saturday a young man was bitten on the calf of the leg at 5 o'clock, about 12 miles from Seymour; the last 2 miles of the journey the driver was unable to keep him awake, and he was carried into my shop in a helpless state, quite unconscious. The doctors being away I took it upon myself to treat him with your remedy. (Strychnine cure). After injecting 20 minims of the liquid with a hypodermic syringe which I happened to have by me, the patient at once rallied, and he was able to recognize his relatives. After walking him about for 20 minutes he became very dozy and fell into a stupor again, but after a 15 minims injection and frequent doses of 10 and 15 minims by the mouth and another injection he recovered. We remained up all the morning walking him about, and at 5 a.m. he was quite able to go home, quite out of danger.

"Dr. Ray arrived at 9 o'clock the same evening and removed the ligatures, and inquired how many minims I had used. I kept an account, which was in all 90 minims, and I was under the impression that 90 minims represented $\frac{2}{10}$ of a grain of Strychnine, having been told by Mr. Mat. Rome, junr., of Melbourne, that the injection was a 1 °/o solution, but Dr. Ray informs me that the strength is 1 in 240.

"I remain, yours truly,
"HERBERT HENSHALL."

"Barnawartha, February 22, 1893.

"To Dr. A. Mueller,

"Dear Sir,—Billy Wain, the Chinaman, was bitten by a snake on the 9th of this month at 8 o'clock in the evening. I sent at once to Mrs. Eggleston for your antidote. By reading the instructions that it should not be used until he got dozy, I did not make use of it; but at half-past ten the same evening I sent him in to Dr. Harkins. He injected about ten drops and sent him home again, but he did not get dozy till Friday afternoon about 3 o'clock; he could not move his limbs at all. I sent up to Mr. Whitehead and got his remedy, he came down himself and gave him one dose, and half an hour later gave him another. The Chinaman could not open his eyes, and the next day he wanted to go to Beechworth to get Chinese medicine. I took him to Albury to the Chinese Doctor instead, who gave him some medicines to rub on his eyes and legs; the following Tuesday he came home again by train, but his eyes were still closed, and only these last few days he has got the use of them.

"He was bitten by a black snake on the left foot two inches above the little toe; he could not move his limbs at all. I gave him a syringe full and a half of the antidote.

I remain, yours truly,
"G. Ph. GEHRIG.

The following paragraph appeared in the *Sydney Morning Herald* of Friday, February 17:—

"Grafton, Thursday.—A son of Mr. Alexander Cameron, of Strontian Park, was bitten by a black snake on the big toe of the left foot. The lad was conveyed to town by steam launch and attended to by Drs. Houison and Young, who administered the strychnine treatment successfully, though the patient exhibited very unfavourable symptoms.

The following telegram appeared in the Sydney daily papers of Tuesday, February 7:—

"Maclean, Monday.—A girl named Mary Cavanagh was bitten by a brown snake yesterday evening. Dr. J. Jarvie Hood successfully combated fatal results with injections of strychnine and ammonia, although the patient was in a dangerously comatose state when she was brought to him."

The *Sydney Morning Herald*, of February 8, contained the following telegram relating to this case:—

"Maclean, Tuesday.—The little girl, Mary Cavanagh, who was reported yesterday of being out of danger from the effects of snakebite, died this morning at Lawrence. On Monday morning she appeared to be quite out of danger, but at noon the same day she complained of pain in the back of the neck, and gradually sank. In consequence of the rise in the river it was impossible to send to Maclean for Dr. Hood, so Dr. Hoets. of Brushgrove, was called in, but the child died at 9 o'clock this morning. The symptoms exhibited after a relapse are said to be extraordinary in such cases.

"A remarkable case of snakebite is reported from Manar, near Braidwood. A girl named Miss T. has been bitten three times within the last six weeks, and on each occasion she escaped serious results by scarifying the wound and injecting ammonia."

This sensational paragraph appeared in many papers throughout Australia, and her medical attendant, Dr. E. Florance, of Braidwood (N.S.W.), writes to us as follows concerning her:—

"Miss T., aged 24 years, was brought in on the 22nd November, 1892, suffering from snakebite. She had been bitten on the left leg about four inches below knee; nothing whatever had been done for her, and she had been driven 14 miles over rough roads in a spring-cart. She stated the snake had bitten through a thick stocking, and on examining the place I found two slight wounds; these, more to satisfy the patient than anything else, as it was at least 7 hours since she said she was bitten, I scarified with a lancet and was surprised to find a small quantity of black blood slowly escape. I applied ammonia F. locally, and after a few minutes the wounds bled freely. The patient suffered no pain and showed no symptoms of fear or other trouble until the following day, when she complained of numbness down the whole limb; this passed off in a few hours. I gave a few stimulants, small quantities of brandy and a little spt. ammonia aromat with camphor water and syrup; *I was very doubtful of it being a snakebite at all, and am so still.* She went home on the 25th quite well (she did not see the snake and the wounds were not like snakebite marks).

On the 11th January, 1893, the same girl was brought to me again in the same manner, bitten by a snake on the same leg (but I do not think by the same snake, for no snake would have courage enough for that). Well, she was brought in with a few scratches on the leg that a neighbour had made, but without any symptoms of snake poisoning; this time she had a ligature put on very tight above and one below the knee, but this time she *said* she had the snake around her leg and had to knock it off. Her story was too life-like, and *I still doubt if there was any snake in the case; the people are of an excitable kind—mother sees visions, and this girl had been dreaming of snakes for weeks.*"

[We agree with our correspondent in thinking that the patient had not been bitten by a snake at all.—Ed. *A.M.G.*]

TWO CASES OF SNAKEBITE TREATED WITH STRYCHNINE.

(*To the Editor of The Australasian Medical Gazette.*)

Sir,—The first was a man named Armstrong. He was bitten on the outside of the right hand by a brown snake whilst endeavouring to kill it with a short stick. He killed the snake with his heel, then went to a neighbour about a quarter-of-a-mile distant, who scarified the wound, having first applied a ligature above the wrist.

I saw him about 20 minutes afterwards. I injected 7 ♏ of liq. strychniæ, applied a ligature tightly above the wrist, and opened the wound, which bled freely. I repeated the injection in 20 minutes, and removed the ligature in about half-an-hour. The man had not a bad symptom. The wound, which healed in a few days, was dressed with boracic acid. There were three punctures.

The second was a native of Finland, name unknown. He was bitten on the outside of the fourth finger of the right hand whilst loading some wood onto a dray. At first he thought it was an ant which had bitten him, until he found his finger bleeding from two punctures. He sucked the wound, tied a ligature above the wrist, and was driven into town.

I saw him half-an-hour after he was bitten. In the meantime he had a full dose of ammonia from the chemist, as I was not at home when he came; also some brandy. The people who brought him in said he was very drowsy until he had the ammonia. I injected 7 ♏ liq. strychniæ, applied a tight ligature above the wrist, and opened the wound. I repeated the injection in 20 minutes. Soon after this he became very drowsy. I injected 10♏. liq. strychniæ, which roused him. The pulse, which was feeble, also improved. I removed the ligature; gave an injection of 6 ♏ liq. strychniæ in half-an-hour. He had no bad symptoms after this. The wound, which was dressed with boracic acid, healed by first intention.

I had a case on Sunday last, but do not think the snake was a venomous one.

Faithfully yours,
ALFRED E. J. BARCROFT.

Moss Vale, N.S.W.,
February 22, 1893.

THE MONTH.

NEW SOUTH WALES.

DR. F. N. MANNING, Inspector-General of the Insane, has directed attention to the seriously increasing number of the insane in New South Wales, and the necessity for taking steps to cope with it. During the past year the number increased to 3,312, or 178 more than at the end of 1891, 50 above the increase in any previous year, and 87 beyond the average increase for the past 10 years.

THE Board of Health, with the object of minimizing the risk to the public of infection through public conveyances, has erected a large chamber at Cowper Wharf, Woolloomooloo, for the purpose of disinfecting conveyances. The superintendents of the various hospitals of the metropolitan district will send cabs and other public conveyances used for the conveyance of persons suffering from infectious diseases to those institutions to the depot for disinfection.

AT the Sydney Hospital the number of indoor patients remaining in hospital on 31st December, 1891, was 228; admitted during 1892, 2,871; total under treatment, 3,099; discharged, cured or relieved, 2,440; unrelieved, 93; died, 311; remaining in hospital 31st December, 1892, 256; percentage of mortality on admissions, 10·9; the average number of admissions per week, 55·2; the largest number admitted in one week, 71; the smallest number admitted in one week, 37; the average number of beds occupied, 242; the largest number of beds occupied at one time, 267; the smallest number of beds occupied at one time, 211; average duration of stay, in days, 28·5. Of the 311 deaths, 110 died within 24 hours of admission. Of the deaths among the medical cases, 41 died of phthisis, 31 of other lung diseases, 12 of heart disease, and 4 of typhoid fever. Of the deaths among the surgical cases, 57 died from the result of injuries, and the remaining 166 were due to disease apart from accident. The figures connected with the outpatient department were as follows:—The number of attendances in the casualty department were 43,872; district surgeon's department, 42,810; eye department, 8,556; ear, throat, and nose department, 2,840; diseases peculiar to women department, 5,579; diseases of the skin department, 510; dental department, 1,080; total, 105,247.

THE number of inpatients under treatment at the Prince Alfred Hospital, Sydney, during the year 1892, was 2,773. Of these 1,535 were cured; 577 were relieved; 227 were unrelieved; 242 died; and 192 remained in the hospital on the 31st December, 1892. The number of outpatients and casualty cases was 6,893. The average number resident in the hospital was 206; the rate of mortality 9·39 per cent. over the total cases; and the number of operations 1,138, with a mortality of 4·30 per cent. Anæsthetics were administered in 1,164 cases without a single mishap.

FIFTY-SIX cases of diphtheria were admitted to the Sydney Children's Hospital during the past year. Thirty-one of these cases required the operation of tracheotomy. Of these, 12 recovered and 19 died. Four of the cases that died were moribund on admission. Of the 15 cases that did not need tracheotomy only 1 died.

A DIPHTHERIA ward for 12 patients and the necessary nursing staff has been established at the Glebe (Sydney) in connection with the Children's Hospital.

THE new hospital building at Warren was opened on March 2.

STEPS have been taken to form a "Sydney Medical Society" on the lines of the Western Medical Association, the principal objects of which are to promote fair and honourable practice and decide on questions of professional usage and courtesy.

AT the usual monthly meeting of committee of the Dental Association of New South Wales, held on Friday evening, January 27, Dr. Burne in the chair, Mr. M. H. Nisbet, L.D.S., was nominated as a member of the Council of above.

DR. GEO. ARMSTRONG, late Resident Medical Officer at the Sydney Hospital, has been elected Medical Superintendent of the same institution in the place of Dr. Hull, resigned. There were 10 candidates for the position, and Dr. Armstrong got 13 votes out of 20; the chairmain did not vote.

DR. WALTER BROWN, of Parramatta, has been appointed a Member of the Medical Board of New South Wales in the place of Professor Anderson Stuart, resigned.

DR. FRANCES DICK, of Sydney, has been elected a member of the New South Wales Branch of the British Medical Association, she being the first lady member admitted to any of the Australian Branches of the Association.

DR. R. DICK, late Resident Medical Officer at the Prince Alfred Hospital, Sydney, has been appointed Demonstrator of Anatomy at the Sydney University.

DR. WALTER FOX, a recent arrival, has succeeded to the practice of Dr. Graham Browne at Narrandera.

DR. FULLERTON, a son of the late Rev. Fullerton, has commenced practice at 267 Elizabeth-street, Hyde Park, Sydney.

DR. WALTER HULL, on his retirement from the position of Medical Superintendent of the Sydney Hospital, was the recipient of several presentations. The first presentation consisted of a handsomely-illuminated address in a white enamelled frame from the Honorary Medical and Surgical Staff of the hospital. It was accompanied by a fine black marble clock, suitably inscribed, and a silver claret jug. The Nursing Staff also presented a beautifully-illuminated address, bound in book form, and a silver-mounted travelling-bag. A third illuminated address came from the Resident Medical Officers and from the Lay Staff, and was accompanied by a solid silver inkstand. The presentations from the employees and Nursing Staff was handed to Dr. Hull by Mr. H. D. Russell, Secretary of the hospital. He eulogized Dr. Hull's ability as a Hospital Superintendent, and wished him every success in his future career. Dr. Hull suitably replied.

DR. H. M. MASSEY has removed from Gunnedah to Hillgrove.

DR. CHANNING NEILL has removed from Bear Hill to Bundarra, 398 miles N. of Sydney.

DR. L. E. F. NEILL, formerly of the Alfred Hospital, has commenced practice at Double Bay, near Sydney.

DR. J. PARKER has removed from Redfern to Ashfield.

DR. E. H. L. PRATT has resumed practice at Tamworth.

DR. RENWICK has been re-elected President of the Sydney Hospital.

DR. W. C. ROBINSON, of Junee, has been elected Medical Officer of the Cobar Hospital in the place of Dr. Speece, resigned.

DR. R. SCOT SKIRVING, of Sydney, left by the R.M.S. "Britannia" on a visit to the old country.

DR. F. TIDSWELL, late of the Prince Alfred Hospital, Sydney, left for England by the R.M.S. "Britannia."

NEW ZEALAND.

DR. D. D. DRYDEN, a recent arrival, has settled at Fairlie, 38 miles from Timaru.

QUEENSLAND.

THE Queensland Government have decided to establish a bacteriological and pathological Institute for the study of diseases peculiar to stock in the colony.

A SURGEON is required for the Peak Downs Hospital at Clermont (annual appointment). Salary £300, with residence and right of private practice. No other medical man in the Peak Downs district. Applications will be received by the Secretary up to 31st March.

THE partnership hitherto subsisting between Drs. Ahearne and Doyle, of Townsville, has been dissolved.

DR. M. J. COLLINS, of Clermont, who lately resigned his position of Resident Surgeon of the Peak Downs Hospital, and who left the district on the 10th of this month, has been presented with a piece of plate and a flattering address by the local Friendly Societies as a slight mark of their appreciation of his services as Lodge Doctor. He also received a set of gold studs and sleeve links, accompanied by a very kind letter, from the Hospital Staff, expressing their sincere regret at his resignation.

DR. E. P. LEAVY, a recent arrival, has commenced practice at Charters Towers.

DR. JAS. MILNE, late of Birdsville, has been appointed Surgeon of the newly-established hospital at Boulia, 1,181 miles N.W. of Brisbane.

SOUTH AUSTRALIA.

DR. FREDERICK EMIL RENNER, M.D. Jena 1847, died at Petersburg on January 31 at the age of 73. The deceased, who was an old pioneer of 45 years' standing, had been unwell for some time, though he was only recently confined to his bed. He was well known in the early days of the colony, and was for many years in partnership with Dr. Beyer in Adelaide. He was Medical Officer to the party who laid the telegraph line from Adelaide to Port Darwin. Dr. Renner, who also practised at Wentworth, N.S.W., and Kapunda, resided at Petersburg for about three years. He held the appointment of Local Health Officer.

DR. JAS. ABERNETHY, late of Port Melbourne, Vic., has settled at Millicent, 335 miles S.E. of Adelaide.

DR. W. J. WALKER, a recent arrival, has settled at Port Pirie.

VICTORIA.

THE Committee of Management of the Alfred Hospital in Melbourne have reduced the number of free beds from 100 to 80. With reference to this action of the Committee the Hon. Medical Staff have passed the following resolution :—"That the medical committee sympathize with the managers in their endeavours to increase the funds of the hospital in the direction of obtaining from patients who can pay the expense of their maintenance. They would desire, however, to point out that a system of pay wards is liable to abuse, and to ask that such precautions be taken as will secure that only those persons are admitted to the benefit of the pay wards who are unable to pay for medical or surgical attendance."

A LIST, recently published by the Public Service Board, of persons employed in the Public Service of Victoria, contains the names of all the medical officers of the Hospitals for the Insane, their ages and their salaries. Dr. T. T. Dick, *æt.* 53, Inspector of Lunatic Asylums, heads the list with £1,000; Dr. W. L. Watkins, *æt.* 48, Medical Superintendent of Yarra Bend Asylum, draws £775, Dr. E. E. Rosenblum, *æt.* 30, the Senior Medical Officer, £480, and Dr. C. G. Godfrey, *æt.* 25, the Junior Medical Officer, £310; Dr. J. V. McCreery, *æt.* 49, the Medical Superintendent of Kew Asylum, receives £825, Dr. H. A. Samson, *æt.* 36, the Senior Medical Officer, £480, and Dr. J. Steell, *æt.* 33, the Junior Medical Officer, £310; Dr. W. Beattie Smith, *æt.* 39, Medical Superintendent of the Ararat Asylum, draws £570, and Dr. W. H. Barker, *æt.* 39, the Junior Medical Officer, £350; Dr. F. P. Deshon, *æt.* 46, the Medical Superintendent of the Beechworth Asylum, receives £660, and Dr. R. W. Lethbridge, *æt.* 35, the Junior Medical Officer, £330; and Dr. J. A. O'Brien, *æt.* 39, Medical Superintendent of the Sunbury Asylum, £570.

A SHORT bill was introduced to the Legislative Council by Dr. Embling, giving the Medical Board power to remove from the register of medical practitioners any practitioner whose name has been struck off the register of the university, the college, or other body by which his diploma was issued. The bill, however, was objected to by some hon. members, and Dr. Embling then withdrew it, but stated that he would bring in one next session which he thought would meet the views of the House.

MR. DAVID PURDIE MACLEAN, L.R.C.S. Edin. 1844, L.S.A. Lond. 1849, died at Walsh-street, South Yarra, near Melbourne, on the 13th February, at the age of 72. The deceased gentleman arrived in the colony in 1852, and first commenced practice at Emerald Hill (now South Melbourne), and afterwards removed to Williamstown, where for many years he held the position of Senior Port Health Officer, which he resigned about four years ago, and since then he has lived in retirement, chiefly at Warburton, 48 miles E. of Melbourne.

MR. FREDERICK HOMAN, L.F.P.S. Glas. 1855, died in Melbourne on February 18, aged 74.

DR. T. O. FABIAN ALSOP, of Hawthorn, met with an accident on February 21 by being thrown out of his buggy into the roadway; he was very much cut about the head and face, and was conveyed to his residence in a semi-conscious condition.

DR. WM. CORRY, late of Surrey Hills, Melbourne, has removed to Kingston, 92 miles N.W. of Melbourne.

DR. G. W. DAMMAN has succeeded to Dr. Stewart's practice at Walhalla.

DR. JAMES JACKSON, of Collins-street, Melbourne, has been elected a member of the University Council, to fill the vacancy caused by the death of Dr. Robertson. There was no other candidate.

DR. S. W. PITCHER has succeeded to the practice of the late Dr. W. R. Allen, at Kingston.

DR. R. H. SCHLINK has settled at Wodonga.

DR. J. L. E. SOMERS, late of Burrowa, N.S.W., has succeeded to Dr. Pullen's practice at Mornington.

DR. J. F. WILKINSON, of Bright, has left on a visit to Europe, and intends to stay away about fifteen months; during his absence Dr. J. L. Fenton will carry on his practice.

DR. WOLFE, late of Glasgow, has left Melbourne for Europe.

WESTERN AUSTRALIA.

THE following five vacancies exist in the Medical Service of Western Australia, for which applications may be made through the Colonial Surgeon and Principal Medical Officer, Dr. A. R. Waylen, of Perth, viz., Office of Resident Medical Officer for the Ashburton district, salary £250 per annum; ditto for the Beverley district, salary £100 per annum; ditto for the Bridgetown district, salary £100 per annum; ditto for the Gascoyne district, salary £250 per annum; ditto for the Greenough district, salary £100 per annum. In addision to these salaries a small allowance for drugs is made, ranging from £12 to £30 a year, according to circumstances. Private practice allowed in each case.

IN Western Australia there were 931 deaths during 1892, or 1·58 per cent. to the total population. Six hundred and twenty-one were males and 310 females, and the total number of deaths under one year of age was 260, and under five years, 338, or 36·30 per cent. to total deaths. The total number of births was 1,848 (959 males and 889 females), or 3·15 per cent. to total population. The principal causes of the deaths were: Typhoid, 55; diarrhœal diseases, 71; cancer, 16; phthisis, 47; heart diseases, 68; bronchitis and pneumonia, 64; childbirth, 10; accidents, 74; suicides, 11; and debility, atrophy and inanition, 52.

THE following paragraph, which speaks for itself, appeared in *The Daily News* of December 9, published at Perth:—"The half-yearly meeting of the A.O.F. Court Robin Hood, 7,990, was held in the Temperance Hall, Fremantle, on Wednesday evening. The Secretary read tenders from Drs. White and Birmingham, offering to give medical attendance and supply medicine to members and their families at the rate of £1 per member per annum. The offers were accepted, the choice of selection being optional by members."

THE death is announced of Mr. William Edward Le Fanu Hearn, M.B. Melb. 1876, L. *et* L. Mid. K.Q.C.P. Irel. 1885, who died at Carnarvon on February 16. The deceased gentleman practised formerly at Kensington (Vic.), and also held the positions of Resident Surgeon of the Inglewood, Hamilton, and Pleasant Creek (Vic.) Hospitals. He was a son of the late Dr. W. E. Hearn, LL.D., of the Melbourne University.

DR. H. C. BARNETT, of Fremantle, has been appointed Superintending Medical Officer at "The Knowle" Lunatic Asylum.

DR. EDWARD SCOTT, of Perth, has been appointed a member of the Western Australian Medical Board vice Dr. A. Jameson, resigned.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Weber, Arthur Sigismond, M.D. Paris 1877.
Fox, Walter, M.B. *et* M.S. Glasg. 1886.
Fullerton, Alexander Young, L.R.C.P. Lond. 1892; M.R.C.S. Eng. 1892.
Horne, Robert Alexander, M.B. Melb. 1891.

NEW ZEALAND.

Dryden, Douglas Dixon, L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glasg.

QUEENSLAND.

Falkner, Edgar Ashley, M.B. Durh. 1889; L.R.C.P. Lond. 1888; F.R.C.S. Eng. 1891.
Leavy, Edwared Peter.

SOUTH AUSTRALIA.

Hall, Francis James, M.B., Ch. M. Edin. 1883.
Cavenagh-Mainwaring, Wentworth Rowland, M.B., Ch. B. Adel. 1892.
MacLeod, Charles Gordon, Ch. M., M.B. Edin. 1889.
Abernethy, James, Ch. B., M.B. Melb. 1891.
Harbison, David Thomas, M.B. Melb. 1892.
Gibbes, Alexander Edward, M.B., Ch. B. Adel. 1892.

TASMANIA.

McDonagh, Eliza Foster, L. *et* L. Mid., K.Q.C.P. Irel. 1879.

VICTORIA.

O'Hara, Elizabeth Alice Maud, M.B. Melb. 1892.
Schlinck, Rudolph Herbert, Staats Examen. Berlin M.D. 1892.
Wolfe, John Reissberg, M.D. Glas. 1856; L.F.P.S. Glas. 1865; F.R.C.S. Edin. 1868.
Willis, William Parton, L. *et* L. Mid., R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892.
Fenton, James Lumsden, M.B. *et* Ch. M. Edin. 1891.
Brown, Ralph Charles, M.B. Melb. 1892.
Moffat, John Allan, L.F.P.S. Glas. 1858.

MEDICAL APPOINTMENTS.

Abernethy, James, M.B. *et* Ch. B. Melb., to be Public Vaccinator for Millicent, S.A.
Corry, William, M.D., to be Public Vaccinator for Kingston, Vic., vice Dr. W. R. Allen, deceased.
Johansen, Johann Peter Ernst, M.D. *et* Ch. D. Berl., to be an additional Public Vaccinator for the district of Nelson, N.Z.
Joyce, Alfred Fleming, M.B. *et* Ch. B. Melb., to be Officer of Health for Moorabbin shire, N.R., Vic.
Muir, James Miller Mackay, M.B. *et* Ch. M. Glas., to be Health Officer for Newham shire, Vic.
Stevenson, James Robert, M.B. *et* Ch. M. Edin., to be Health Officer for Petersburg, S.A.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

GIBBS.—On the 4th February, at Warracknabeal, Vic., the wife of Dr. R. H. Gibbs, of a son.

MILLER.—On the 30th ult., at Maryborough, Vic., the wife of W. F. Miller, M.B., M.R.C.S., of a daughter.

READ.—February 19, at Kiama, N.S.W., the wife of Dr. Read, of a son.

SWIFT.—On the 2nd February, at Adelaide, the wife of H. Swift, M.D., of a son.

MARRIAGE.

NEWMARCH—HEATHCOTE.—On January 31, at St. John's Church, Darlinghurst, Bernard James Newmarch, L.R.C.P. Lond., M.R.C.S.E., of North Sydney, to Blanche Edith, eldest daughter of R. W. Heathcote, of Ingleburn, N.S.W.

REPORTED MORTALITY FOR THE MONTH OF JANUARY, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	293	160	55	...	1	1	2	1	8	15	8	13	5	2	3
Suburbs	275,615	875	325	161	...	4	7	1	3	19	29	16	20	11	1	2
NEW ZEALAND.																
Auckland	28,613	73	37	14	...	...	4	...	...	3	3	1	3	3	...	...
Christchurch	16,223	28	19	11	...	...	...	...	1	1	...	1	...	2	...	...
Dunedin	22,376	46	38	4	...	...	...	2	...	1	5	1	1	4	...	...
Wellington	31,021	90	34	21	...	...	1	1	...	6	1	...	3	1	...	...
QUEENSLAND.																
Brisbane	56,075	177	83	37	...	...	2	...	2	8	9	9	6	2	...	3
Suburbs	37,582	112	36	23												
SOUTH AUSTRALIA	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Adelaide	38,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TASMANIA.																
Hobart	34,972	100	54	24	...	...	7	1	1	2	3	4	3	6	...	...
Launceston	22,280	54	28	16	...	...	...	...	...	1	1	1	1	1	...	...
Country Districts	96,180	281	65	...	...	1	2	...	1	6	4	...	...	...	...	...
VICTORIA.																
Melbourne	71,881	122	70	353	...	1	6	8	13	50	54	43	40	34	...	5
Suburbs	417,304	1,166	632													
WESTERN AUSTRALIA*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR JANUARY, 1893.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	81·5	67·1	54·	...	5·050	15	78	..
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	98·	75·4	58·8	29·780	9·467	11	72	...
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	93·8	61·8	40·	...	1·639	11	69	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	88·	58·6	38·	...	5·242	13	71	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	90·	61·	45·	29·844	5·91	11	66	...
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	85·	65·	42·	29·842	3·28	8	83	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	95·5	65·7	45·1	29·779	0·194	4	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	...	...	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	82·2	69·3	57·5	29·871	4·57	19	75	N.E.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	82·	62·7	44·5	...	3·374	15	71	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

RECENT WORK ON THE PATHOLOGY OF CANCER.

READ BEFORE THE MEDICAL SECTION OF THE ROYAL SOCIETY OF N.S.W.

BY G. E. RENNIE, M.D. LOND., M.R.C.S.E., PATHOLOGIST TO PRINCE ALFRED HOSPITAL, SYDNEY.

(*Continued from page 72.*)

◆

II.—PROTOZOA.

I PASS on now to review the work done in attempting to associate the development of cancer with the growth of other low forms of animal life, viz., the protozoa.

According to Leuckart the protozoa include three groups—the rhizopoa, the sporozoa, and the infusoria. The sporozoa, according to Balbiani (*Lecons sur les sporozoaires*), contain five groups or orders—the gregarinæ, the psoropermiæ oviformes or coccidia, and three other groups of psorosperms. The gregarinæ occur as parasites in the invertebrata, while the psorospermiæ occur in the vertebrata. The psorosperms are unicellular organisms covered by a more or less firm capsule, which latter in the coccidia has a double contour.

Reproduction in them all is by means of spores formed in the interior of the adults, and in these spores are developed sickle-shaped bodies, which escape from the spore and become new parasites.

The idea that the development of cancer might be associated with the presence of these organisms was founded upon the fact that they have been met with in certain diseases in which a proliferation of epithelium occurred not very unlike that which occurs in true cancer. The disease known as molluscum or epithelium contagiosum is an affection of the skin associated with local hyperplasia of epithelium.

Virchow first pointed out the resemblance of certain structures in this disease to coccidia, and this was subsequently confirmed by several observers, latest by Professor Neisser, of Breslau, who attributed the disease to an intra-cellular infection by coccidia.

Danier described (*Ann. de Dermatologie et de Syphilographie*, July, 1890) a rare, chronic, acne form skin eruption, beginning in the hair follicles, which he attributed to the presence of coccidia in the epithelial cells of the hair-follicles. Another disease in which we find hyperplasia of epithelium is Paget's disease of the nipple, and this is specially interesting from the fact that it is almost invariably followed by cancer of the breast.

Danier, Wickham and Malassez attributed the development of this disease to the presence of psorospermiæ in the epithelium. In England, J. Hutchinson, junior, and Bowlby have also proved the general presence in Paget's disease of the bodies described by the French authors as psorospermiæ.

Wickham describes three stages in Paget's disease. The first stage is characterized by marked growth and thickening of the layers of the epidermis, and increased scaliness in the horny layer and lengthening of the papillæ. Psorosperms are found in large numbers in the cells of the rete malpighii as well as in the horny layer. They are more or less rounded intracellular structures, often, but not always, presenting a well-marked double contour, variable in size; but generally the epithelial cell containing them is much enlarged. In the interior of the smaller cysts either granular protoplasm is found and a nucleus is visible, or a larger or smaller number of flattened bodies lying side by side, and surrounded by a membrane, *i.e.*, presenting the structure of a sporocyst. The cell nucleus is flattened and pushed aside by the parasite. The second stage is that of ulceration of the surface, with drawing in of the nipple. The disease can remain in this stage for some years, but sooner or later we have the third stage, that is development of true squamous epithelioma of the skin adjoining the seat of ulceration. The atypical epithelial proliferation proceeds from the altered epithelial cells of the epidermis or of the gland ducts, in which psorospermiæ are likewise present.

Further, it is well known that in the livers of rabbits small whitish nodules are frequently met with, which are found to consist of cysts containing papilliform projections covered with rapidly proliferating epithelium, in the cells of which are numerous protoplasmic bodies, which are known as coccidia or psorosperms. These organisms infest the epithelial cells, lining the bile ducts, and excite them to rapid proliferation and lead to the formation of psorosperm nodules. In view of these facts Wickham believed that the hypothesis that cancer depended in many cases at any rate upon psorospermic infection of the epithelium was one worthy of consideration.

These opinions of Neisser, Darrier and others were adversely criticized by Törok and Tommasoli, who regarded the bodies described as psorospermiæ by these authors, from their power of resisting strong chemical reagents to a degree quite unusual with coccidia, as nothing but degenerative products resembling the colloid substance.

Ballance and Shattock in 1887 hinted at the probability of cancerous growths being dependent on the presence of one of the group of protozoa; but it was not till June, 1889, that Professor Thoma announced the discovery of a characteristic, parasitic organism in the epithelial cells of carcinoma. He observed in the epithelial cells of carcinoma of stomach, bowel and breast structures, which he regarded as parasites, 4 to 15 μ in diameter, roundish, frequently oval or sickle-shaped, consisting of protoplasm and nucleus, lying for the most part in the vacuolated, degenerated cell nuclei, and often in the vesicle adjoining the nucleus. One cell might contain four to six of these bodies, which could be demonstrated by means of hæmatoxylin, saffranin, eosin, etc. These bodies he regarded as encapsuled coccidia, but spoke reservedly of any etiological relationship between the organism and the development of cancer; and from the fact that the epithelial cells infested by these parasites showed no signs of proliferation, but, on the contrary, only degeneration, it seems highly improbable that any such causal connection could exist.

Two French authors, Michaux and Albarran, assume that psorospermiæ, which they believed they had observed in cases of skin cancer, were the exciting cause of the cancerous growth, and Malassez had also observed coccidia in various forms of cancer.

In the following year (July, 1890) Nils Sjöbring described in the epithelial cells in cancerous growth a series of structures which he regarded as different stages in the life history of an organism. He found these in section of cancer of the breast, liver and prostate glands. He stated that he was convinced of the presence of sporozoa in cancerous epithelial cells, though he could not speak definitely of any etiological relationship between the two. The organisms he believed he had found differed from those described by Thoma and the French writers. The parasites in their early state appear as small, rounded, non-nucleated bodies about 1 μ in size, within the nucleus of the cancerous epithelial cell, and often surrounded by a clear space and staining deeply with eosin. These bodies then pass from the cell nucleus into the cell protoplasm, where they appear to have processes, and migrate from the first cell to another. In the latter they are seen to surround the nucleus, which soon degenerates and disappears; the cell protoplasm is pushed aside by the organism, and is partly absorbed. The protoplasm of the parasite then shows segmentation into 20 or 30 spores. At the same time they become encapsuled by a membrane, and thus present the appearance of a sporocyst. The spores at first have the form of small curved rods with swollen extremities. These, at a later period, escape from the enclosing membrane and pass through a series of changes till they become the rounded bodies seen in the epithelial cell nuclei. The young protoplasmic non-nucleated forms are frequently met with, but the sporocysts are much rarer. It is noteworthy that these organisms are specially met with in foci of degeneration and softening, of which they may possibly be the exciting cause, since they have the power of inducing cell decay. Under these circumstances it seems hardly probable that these bodies can be the exciting cause of cancerous growth.

Ramsay Wright, in an address on the pathogenic sporozoa at the opening of the new building of the Biological Department, University of Toronto, 1890, gave a short review of the diseases which could be referred with more or less certainty to the pathogenic influence of the sporozoa. He referred briefly to some observations on the occurrence of coccidia and sporocysts in carcinoma, carried on under his superintendence for four years by Drs. Macallum and Caven. These showed the same morphological and staining characters as the parasites described by Malassez, Pfeiffer and Thoma. He concluded that in the development of sporozoa in cancer was to be found the true explanation of the etiology of cancer.

Pathologists, however, were not agreed that the structures described by various authors as coccidia and psorospermiæ were really organismsat all.

Borrel, after an exhaustive study of the bodies described as coccidia, came to a different conclusion as to their nature, though he did not regard the parasitic origin of cancer as *à priori* improbable. His conclusions were based on a study of these cell structures as met with in cancer of the lip, upper jaw, penis and rectum. He regarded them as cancerous epithelial cells which had undergone peculiar degeneration, and was specially dubious of their being coccidia, on the ground that precisely similar structures could be detected under certain conditions in the epithelial cells of skin, which was the subject of simple inflammation. He recognized two chief forms of these doubtful structures, which, in his opinion, had no relation to one another:—(1) One group comprised roundish, intracellular bodies, often closely embracing the nucleus of the cell, but sharply marked off from the protoplasm of the cell body, consisting of granular protoplasm and probably a nucleus. These bodies corresponded to those described by preceding authors as the young forms of coccidia. On the ground that these bodies presented many features in common with the carcinoma cells, he regarded them as the result of an endogenous new cell formation. (2) The other group consisted of structures lying free in the tissues, of varied form, and of the size of one or more epithelial cells with thick, hyaline, limiting membrane—the contents being homogeneous and oftentimes segmented here and there with a faint trace of a nucleus. These Borrel regarded as being derived from the tissue element of the cancer by a peculiar process of cell degeneration and necrobiosis. They correspond to what had been described by previous writers as sporocysts.

Firket found rounded bodies in the cells of the epidermis overlying a simple fibrous tumour, precisely similar to those described as coccidia in cancer. He did not regard these bodies as parasites, but agreed with Borrel that they were probably degeneration and exudation products.

Siegenbeck van Heukelom examined over 200 cases of cancer of all kinds, with special reference to the various structures described. Though he was able to identify the structures referred to by various authors, he was unable to offer any explanation of their nature, and still less could he speak with certainty of their having any etiological significance in the development of the atypical epithelial proliferation and the malignancy of cancerous growths. He divided these structures into two classes, (1) *large*, and (2) *small* spheres. The former, which had often the appearance of containing one or more nuclei, closely resembled epithelial cells in many respects, and he did not think they could possibly be regarded as degenerative products. The smaller spheres presented, on the other hand, the appearance of cell degeneration, and often resembled leucocytes with fragmentation of their nuclei. He believed that the different writers on the subject had described a variety of objects having no connection with one another as being coccidia.

Schutz believed that some of the intercellular structures in question were degenerated cells, which were derived from leucocytes with fragmented nuclei. He insisted on the fact that these bodies were very frequently met with in cancer cells adjacent to blood-vessels. In a subsequent communication he expressed the opinion that the rounded homogeneous hyaline bodies described as early stages of the coccidia were really only red blood corpuscles which had wandered into the cells or their nuclei, and had there undergone a series of mophological changes. He founded this opinion on the resemblance in the staining properties presented by these bodies, and undoubted red corpuscles extravasated in the tissue of the tumour.

Klebs investigated the nature of these bodies in another way. I shall refer later to his experiments, but in the meantime I may say that he came to the conclusion that these bodies were not parasitic.

Sheridan Delépine, in an address on psorospermosis as a possible cause of epithelial tumours, at the Seventh International Congress of Hygiene and Demography, referred to his investigations on psorosperms in epithelial tumours. He found bodies precisely similar to those described by Darrier, Wickham, and others, more particularly in sections of squamous epitheliomata, columnar-celled epitheliomata, and duct cancers. Out of a large number of various kinds of cancer he examined he found psorosperm-like bodies in about 22 cases only. While fully recognizing the resemblance between these bodies and certain developmental stages of psorospermiæ, he had not been able to satisfy himself that they were really psorosperms. Psorosperms obtained from the rabbit's liver can easily be cultivated in nutrient gelatine or in the serum obtained from some of the psoropermiæ cystic tumours. The subdivision of their protoplasmic contents into two, four, six, or even more, spore-like bodies can then be easily observed. In only one case of epithelial tumour, viz., a case of duct cancer of the liver, had he been able to observe any such appearances. In this case he observed some large oval bodies somewhat larger than rabbit psorosperms, and containing several rounded amœboid-looking bodies, but he did not feel justified in affirming that they were psorosperms. He stated in conclusion that the evidence he had been able to obtain so far was against the psorospermial nature of the bodies he had observed in epithelial tumours, and he held that the same conclusion must also extend to the bodies observed in Paget's disease of the nipple.

At the same meeting Professor Simon Duplay and Dr. Maurice Cazin contributed a paper on the same subject. They had examined 60 epitheliomata specially with a view of ascertaining whether those bodies really represented the principal characters known to belong to coccidia. In the majority of the cases examined they had been able to easily demonstrate a series of appearances evidently corresponding to those described, and certainly resembling those presented by encysted parasites, specially during the amœboid stage; but in no case had they been able to observe any appearances corresponding to the stage of reproduction. In more than 30 of the epitheliomata examined the parasitic nature of the bodies did not appear to be by any means established. In 15 cases examined no appearance at all resembling coccidia had been discovered.

Steïnhaus, in two papers in "Virchow's Archiv.," deals with various intra-nuclear and cellular appearances met with in carcinomata. Some of these can be more easily interpreted as parasites than as anything else, but he does not regard them as offering sufficient basis for a parasitic theory of cancer formation. In his second paper he refers particularly to Pfeiffer's and Darrier's figures of coccidia, and shows that they are not by any means conclusive. In fact, by a series of drawings made from sections of cancer, which had been fixed in corrosive sublimate, hardened in alcohol, and stained with hæmatoxylin, eosin, &c., he shows that these supposed coccidia may equally well be regarded as hypertrophied epithelial cells whose processes have become enlarged, and which appear to be the continuations of striæ radiating from the nucleus to the periphery of the cell.

Virchow, in a short note in his "Archiv.," re-affirms his former position in regarding these bodies as endogenous products of the cells, and does not believe that they stand in any etiological relationship to the development of cancerous growth.

Quite recently, however, Soudakewitch, in a paper in the "Annals of the Pasteur Institute," states that for some time he had observed within the cells, and even within the nuclei, rounded or oval bodies, sometimes with distinct walls, specially numerous in cases of glandular cancer. These bodies were evidently the same as those described by previous writers, but he was able to make out very little structure in them. Subsequently by a more perfect method of hardening with osmic acid he was able to make out within the cell, and even within the nucleus, small, unstained, rounded masses, some of which were surrounded by a homogeneous or finely granular and pectinate zone, or with pointed or blunted rays, which were frequently coloured with the hæmatoxylin. The more homogeneous they are the less perfectly do they stain, whilst the striæ or granules round the homogeneous portion usually take on a deep stain. There may be several capsules within the same cell, especially when the cells are of large size. In a note appended to this paper Metschnikoff states that from the nature of these organisms, their solid envelope and protoplasmic contents, they are probably coccidia. He also points out that earlier observers had undoubtedly demonstrated the presence of these parasites, but that none of them had been able to obtain such definite results as Soudakewitch. Metschnikoff suggests that the life history of these parasites should be much more carefully studied than has hitherto been done.

In a still more recent paper Podwyssozki and Sawtschenko give the results of some observations on parasitic forms in cancerous growths. In specimens hardened in Fleming's fluid and stained with saffranin, they describe sporozoa in the cells and between them, occurring singly and in masses. They found some filled with sickle-shaped embryonic forms, characteristic of coccidia and sporidia. These sporocystic forms were, however, but rarely met with; other sickle-shaped forms were abundant. Besides these were many globular forms, which they regarded as resting stages, and these varied much in size. These bodies were especially frequent in cancer of the breast and testis, and the authors are convinced that they are parasites; but they could not decide whether all such bodies found in carcinoma are such, and whether the sporozoa all belong to the same species, or whether there are different species for different forms of carcinoma. In both of these papers, though the authors are convinced of the existence of parasites in cancer cells, yet they can give no proof that the parasites stand in any etiological relationship to the development of the cancer.

III.—FUNGUS.

We come now to the third form of organism which has been described as the cause of cancer. In December, 1890, Dr. Russell, of Edinburgh, published a paper on what he calls "a characteristic organism of cancer." The full text of the paper appeared in the *British Medical Journal*, December 13, 1890. His announcement was based on the discovery of the supposed organism, presently to be described, in 43 out of 45 cases of cancer of various organs, and on the failure to discover any similar bodies in pathological material of various kinds taken from 50 to 60 different cases, with two or three exceptions. Thus he found similar bodies in one case of chronic ulcer of the leg, in one of tubercular disease of the knee, and in one of very severe and phenomenally destructive syphilis. These supposed organisms are stained deeply by carbolic solution of fuchsin, and resist the action of re-agents which decolourize all other structures in the tissues under examination; hence Russell speaks of them as fuchsin bodies. According to his description, they occur generally in groups of two, three, four, or more, generally with a clear space surrounding them, this clear space appearing to be bounded by a definite capsule. The individual bodies form perfect spheres, varying in size from 12 μ to 4 μ; they appear perfectly homogeneous and structureless when examined by daylight. Sometimes a smaller sphere is found in immediate contact with a larger one, as if derived from the latter by a process of budding. These bodies are found in larger numbers in the more actively growing parts of the cancer. Russell concludes his paper as follows: "From all this there is in my mind absolutely no doubt that the organism here is a fungus which belongs to the group of sprouting fungi, or sprosspilze of Nägeli. . . . It is only necessary for me to remind you that this class of fungi includes the yeast fungus, and that if the presence of this parasitic fungus in cancer is confirmed by other observers we have found in it an organism which, from its very character, implies a production of fermentation products, while the nutrition, reproduction, death of the fungus, cannot be conceived as occurring in the tissues without producing changes not disproportionate in magnitude to the anatomical changes in cancer." In this paper we have two definite assertions made: (1) That the fuchsin bodies are organisms. (2) That they are characteristic of cancer.

Taking the latter assertion first, I may say that I have lately examined a number of sections of cancerous growths stained according to Dr. Russell's method, and have succeeded in finding these fuchsin bodies in almost every case, but on staining sections of non-cancerous growths in precisely the same way similar fuchsin bodies were found. For example, in section of a caseous lymphatic gland and of granulation tissue obtained from a case of necrosis of a metatarsal bone they were very distinct, and no difference could be made out on comparing them with those met with in cancer. Messrs Ballance and Shattock, in a paper published in the *British Medical Journal*, March, 1891, stated that they had found these bodies in various pathological conditions, such as caseous tubercular glands, diphtheritic tonsils, &c., and quite discredited the idea of their being organisms. Duplay and Cazin, in a paper already referred to, asserted that these fuchsin bodies could be found in any non-cancerous pathological lesion of a chronic character. I think this is sufficient evidence to prove that these bodies are at any rate not characteristic of cancer.

As to the truth or otherwise of the first assertion, viz., that these bodies are of the nature of a fungus, we cannot at present speak so definitely. The fact that under high power these bodies present not the faintest trace of organized structure, and that all attempts to cultivate them have failed, renders it, *à priori*, improbable that these are organisms either animal or vegetable. It has been stated by the authors referred to that these bodies are really only products of hyaline degeneration; this may be so. I may say that at present I am investigating the nature of these fuchsin bodies, and as I have shown that they are not characteristic of cancer, at the present time they are of no further interest to us.

(To be concluded in next issue.)

CLINICAL CASES.

By C. H. Smith-Hozier, F.R.C.S.I., &c., of Sydney.

I.—Empyema of the Antrum of Highmore.

I think the following case worthy of record because it shows how sometimes a lesion may exist with comparatively few symptoms to attract the attention of the surgeon:—

J. M., *æt.* 31 years, a tall wiry man, consulted me on the 23rd September. He lived up the country beyond Bourke, and stated that he was subject for the last few years to an unpleasant discharge from his right nostril, but lately it had almost ceased. He seemed to think he had only a bad cold which he could not get rid of. His general health was pretty good, but this affection had a generally depressing effect upon him.

Upon a rhinoscopic examination I found a slightly-congested state of both nasal cavities. There was no purulent secretion, and this did not appear even upon depressing the head to the left side so as to induce a flow from the right antral cavity, nor upon placing his head down to his knees in the sitting posture. There was no hypertrophy of the turbinateds, and little to see except the injection of the mucous membrane, which a slight cold would produce. Upon examining him by posterior rhinoscopy I found a dry catarrhal condition of the nasopharyngeal space with adherent dry crusts upon the posterior upper pharyngeal wall. Thus far there was nothing to account for his symptoms except a post nasal catarrh. I, however, illuminated the mouth with the electric light made by Adolf Ebert, of Vienna, and found both sides fairly translucent, there being a barely perceptible difference in favour of the right side being more opaque. I noticed the first molar on the right side was decayed, but he had had no toothache nor pain of any kind in the region of his face or temples.

I decided, however, to open the right antrum, and sent him to a dentist to have the first molar stump extracted; and on the day following I operated with a shouldered perforator made for me by Marconi, of Vienna, with a self-retaining canula of hard rubber. Upon washing out the cavity with warm boracic solution a most offensive purulent secretion was removed. The stench was most sickening, and the patient recognized having perceived it slightly occasionally before. I insufflated boracic acid and left in the canula, and washed out the cavity daily, instructing my patient to plug the canula each time before meals.

Suffice it to say that everything went on splendidly, and at the end of a fortnight I was obliged to allow him to return to the country to resume his duties, leaving his tube, however, still in the dental cavity with instructions as to carrying on the treatment. There was, subsequent to the day of operation, no odour whatever, and upon washing out the cavity barely any discharge, merely a small flake of pus now and again. The fluid flowed freely out of the right nostril from the first; post-nasal catarrh cured.

A few remarks now upon the above case. The fact, in the first place, of the symptoms being so very slightly marked; the discharge ceasing entirely upon his coming up to the coast; the total disappearance of the post-nasal catarrh ensuing upon the removal of the cause; and finally, the negative result of the electric illumination, which I account for in this case by the very small amount of the fœtid secretion in the antrum, and which, so far as I can ascertain, has not been hitherto alluded to. I am quite aware of the results obtained in the varying thickness of the superior maxillary bones as an argument against the electric illumination; but in this case, and I have no doubt others, I think one of the causes of its failure may be a patent condition and low opening of the foramen permitting escape of fluid into the middle meatus, thus allowing a comparatively transparent appearance of the upper portion of the cavity and adjacent parts.

In conclusion, I may state that I based my diagnosis in this case entirely upon the fact of the first molar being diseased and the previous history of a right-sided nasal discharge. The objective symptoms were not sufficient otherwise of themselves to warrant a positive diagnosis. I also refrained in this case from using an exploratory puncture in the inferior meatus, as had been advised, as I anticipated a negative result from the small amount of fluid giving rise to an almost inappreciable difference in the trans-illumination.

II.—Complicated Double Hypertrophic Rhinitis.

I desire to record the following case as an instance to show how (owing to the injurious effects of oral respiration) a frequently recurring affection like bronchitis may be dependent upon nasal disease for its cause, and how treatment of the latter mostly cures, but always considerably relieves, the lung trouble. I will merely mention that this is not to be wondered at when we take into account the exhaustive experiments which have been undertaken by the Germans about the physiology of the nose as a respiratory organ; and the results arrived at by Rosenthal, Aschenbrandt of Würzburgh, and Kayser, which concisely are: that air in passing through the nose is "warmed" to blood heat; is "completely" saturated by exhalations given off from the turbinated bodies; and an interchange of gases takes place, carbonic acid being given off from the blood in the nasal mucous membrane, estimated roughly at $\frac{1}{50}$ of that given off by the lungs. These results of themselves will show the absolute necessity for healthy nasal respiration, as there is no provision in nature for vicariously saturating the inspired air.

Master L. J., aged 12 years, with healthy parents, consulted me in July last. He is small for his age; weighs four stone; is very backward in his studies; is sallow and pale; face absolutely expressionless. He was said to have polypi, and was operated upon about six years ago without any benefit whatever. Ever since that time he has had complete nasal obstruction, and has been a martyr to bronchitis, having attacks as often as every fortnight. This boy's appearance struck me as a good example of that expression of countenance to which the name "aprosexia" has been given.

Upon tilting up the nose and looking in without the speculum two pendulous tumours were seen; these were the hypertrophied anterior extremities of the lower turbinated bodies, and were removed with the galvano cautery, but hardly improved the very limited view into the anterior nares. I examined him by posterior rhinoscopy and found large adenoid growths, which a few days later I removed with Gottstein's curette, under cocaine. It is not necessary to go into each detail of treatment beyond stating that I removed obstruction after obstruction consisting of double hypertrophic rhinitis, both turbinateds being so large in their whole length as to completely block the inferior meatus; in addition, on the right side was a large septal spur, which was removed by Bosworth's saw, and when a view was obtained sufficiently far back several small polypi were removed from the posterior edge of the lower lip of the hiatus semilunaris; and even then the obstruction to respiration was not removed. I consequently removed with the galvano cautery snare the posterior extremities of both lower turbinated bodies, which were each as large as a walnut, and in their middle portion they were repeatedly cauterized, not only with chromic acid, but also the galvano cautery, various applications being made at different times. I thus removed all the obstacles to respiration, leaving on the right side the nose in a healthy state, but owing to the growth of the septal spur on the left side it touches and pushes against the turbinated; but as there is at present sufficient breathing space I have decided to wait some months before I decide upon whether it will require operative treatment or not. About a month ago I was summoned to him as his mother thought he had another attack of bronchitis. I visited him and found he had been exposed to inclement weather, got wet, and had congestion of the whole of the right lung, but no bronchitis; the left lung was normal. In a few days this disappeared under appropriate treatment. The fact of the affection being one-sided and having a distinct existing cause only confirmed me in my opinion that it had no reference to oral breathing, and thus was not due to the former nasal trouble. He first came under treatment in July, and with this one exception has never had a lung affection since I first saw him; he is now bright, cheerful, and has a good colour; can breathe readily through either nostril; and all his friends have noticed the great improvement in his appearance; he can attend school and take an interest in his lessons, which he could not do previously.

I think the above case a very good instance of how lung diseases may be not only considerably relieved, but cured by nasal treatment alone when depending upon it. Without exception it was the worst case of nasal obstruction I have ever encountered, depending as it did upon so many different causes, any one of which were sufficient to cause the obstruction.

III.—CASE OF ASTHMA CURED BY INTRA-NASAL TREATMENT.

This is one of those cases which I think should be recorded, first on account of the difference of opinion held by various specialists, and secondly on account of the very decided and lasting effect of treatment.

Miss E. S. first consulted me on the 6th April for asthma. She was a pale, sallow, flabby girl 20 years of age; of a highly neurotic temperament; of very sedative habits; menses normal as to time but deficient in quantity; pulse feeble; breath short and continuous bronchial wheezing. She suffered from faintness and giddiness; broke out into cold perspirations; was perfectly worn out from constant cough and sleeplessness, as she had to sit up night after night for the last two years, sometimes in and sometimes out of bed, to get her breath. She had but little respite during the daytime from the cough and wheezing; had been under medical treatment at various times; tried change of air, &c., &c., with little, if any, benefit.

I had much difficulty, owing to her nervous and frightened condition, in making a nasal examination, and when I did so found at first apparently nothing to warrant me in giving a positive opinion: the lungs were full of bronchial râles, but there was no emphysema nor cardiac affection apparent. I merely noticed a septal spur on the right side, turbinated bodies normal, but mucous membrane reddened. I prescribed several antiasthmatic remedies, including nitrate of amyl, iodide of ethyl, &c., &c., besides attending to her general health and hygiene; they had no effect whatever. After a little I noticed engorgement of the right lower turbinated body, and next day this had subsided and attacked the left side; questioning her closely I found that the nasal obstruction invariably preceded the asthmatic attacks. On probing certain spots violent coughing and sneezing ensued, but no *bronchial spasm.*

These attacks were uninfluenced by the application of a 5 per cent. solution of cocaine, nor had a 10 per cent. spray any effect in cutting short the asthma. Suffice it to say that I applied chromic acid, and several times later the galvano cautery, with the result of markedly diminishing the attacks to one every seven or ten days, which I could always predict by a swollen turbinated body on one side or the other. I now noticed the septal spur had so increased in size as to touch and press upon the lower turbinated on the right side, and this, with Dr. Knaggs' kind assistance, I removed under chloroform. She has never had an attack since; is bright, cheerful and rosy; breathes freely through both nostrils; sleeps well; can walk up and down hill, and has been equally well in rain, westerly winds, and fine weather.

A few words upon the above case may not be amiss when we remember that we are dealing with one of the most rebellious diseases as regards both alleviation and cure. In this case I was struck by the apparent absence at first sight of nasal symptoms, merely a slight nasal catarrh, the small size of the spur barely entering into one's calculations as a causal factor; the negative effect of cocaine, which is usually considered an important means of diagnosis, and the important necessity of perseverance in eradicating step by step the causal factors. The only symptoms which led me to hope for success being the hyperæmia (alternating) of the turbinated bodies and the results of probing.

Now as to the occasional failure of treatment I am of opinion that it may be caused by insufficient perseverance in the removal of every possible cause *seriatim.* Sometimes, on the other hand, it may be due to doing too much, what the Americans term having the nose "cleared out," thus depriving the organ of its most important respiratory function, the very last thing to be desired. On the other hand, other causes of nasal obstruction must not be lost sight of in treatment, believing as I do that oral respiration plays a larger share in the production of lung diseases than is generally supposed (and in this category I would include some of the so-called reflex neuroses, as asthma, laryngismus stridulus, &c.).

It is thus only treating each case on its own individual merits that we can hope for a successful issue, doing neither too little nor too much, but by a careful balance of judgment reach the desired goal and not bring the all-important treatment of nasal diseases into disrepute.

The above case was included in a paper read by me before the Subsection at the Medical Congress, Sydney.

St. James's Chambers,
King-street, Sydney.

THE ANALOGOUS ASPECT WHICH MAY EXIST BETWEEN CERTAIN CASES OF SYPHILIS AND LEPROSY, AND THE DIFFICULTIES OF THEIR DIFFERENTIAL DIAGNOSIS, WITH ILLUSTRATIVE CASE.

By W. McMurray, M.D.

The subjective and objective identity of many of the manifestations of syphilis and tubercular leprosy renders their differential diagnosis sometimes a matter of considerable difficulty, even to the most accomplished physician.

Modern advances in our knowledge of syphilis, especially with regard to the nervous sensory phenomena, demonstrate that they are capable of causing analogous symptoms to tubercular leprosy.

The importance of forming an accurate opinion of the etiological factor, both from a scientific and practical standpoint, cannot be overestimated.

The following case, which recently occurred in my practice, will illustrate what I desire to convey :—

The patient, X., aged 33 years, was brought to me by Dr. Worrall on the 9th September, 1892. Her history was as follows :—She was born in New South Wales; father died of apoplexy, aged 75 ; mother from shock at 68 ; has two brothers, aged 40 and 35 respectively, both of whom are living and enjoy good health ; has two sisters—one, aged 37, in good health, the other, aged 45, at present confined in the Little Bay Lazaret as a leper.

Four years ago my patient contracted a venereal sore, diagnosed by a physician to be specific, for which she was treated locally and constitutionally with much benefit. During this period she suffered from sore throat and a "small spot" on her forehead, with occasional nocturnal pains. (In passing I may mention that I have found these osteoscopic pains generally most severe at twilight, and not increase but generally to disappear on pressure). Some time afterwards she developed later lesions on her face, for which she consulted numerous metropolitan medical men, all of whom suspected them to be leprous. It was for these lesions she was brought to me.

On her first visit her condition was as follows :—Situated on the right side of the nose, extending to the ala and encroaching on the lower eyelid, partly closing the fissure, was a tubercular swelling. Another existed on the frontal eminence on the same side, but of smaller size. Both these lesions had the same general appearance, being sharply defined, firm to touch, except in the centre of the upper, which was crateriform. The skin covering these surfaces was slightly scaled, lustreless, and of a deep sombre tint ; in short, she was a good example of M. Goutard's "facies syphilitica leontiasis." Sensation over the tubercles was altered, both as regards touch and pain. At a later period, when they were resolving under treatment, I observed, in conjunction with Dr. Power, the presence of periostitis. The trunk was free, but numerous lesions were to be seen on the extremities, especially the extensor aspects of the forearms and a few scattered lesions, non-symmetrical, on the lower.

All these nodes varied in size ; some were globular, and as much as two inches in their longest diameter. Generally speaking, however, they had all the same characteristic appearance, and occurred in greater numbers about the vicinity of joints.

The most recent had a brownish-red colour, glossy and hard to touch, sharply defined, scaly, and raised above the surrounding skin. The older nodes had the same characteristics with the exception of being paler in colour. The left ulnar nerve was thickened and tender to touch.

The only other tegumentary lesion visible was bilateral syphilitic onychia of the thumb nails.

Analgesia and anæsthesia were present over all the spots, occurring as well in the apparently normal neigbouring skin, seen most markedly on the dorsal surface of both meta carpi.

On her second visit, 10 days later, she seemed better ; the lesions on her face had improved. I ordered her to continue the same line of treatment, and report her condition in a fortnight. Unfortunately, in the meantime she was arrested by the authorities of the Board of Health as a suspected leper, and isolated in the Coast Hospital. At the request of her relatives I continued in attendance, adopting the same treatment for five weeks, when she was released, her condition having markedly improved.

This case demonstrates in a forcible manner the difficulty one may encounter in practice of differentiating between lesions common to both syphilis and leprosy.

Fournier was the first to definitely describe the altered cutaneous sensibility in syphilis, and according to him the most frequent form is analgesia, which is sometimes associated with anæsthesia and loss of thermic sensibility. He has found it during the past two years to occur in 100 cases. Its distribution may be general or confined to certain localities; for instance, the favourite situation is the extensor surface of the upper extremity, especially in women. The dorsal surface of the metacarpus is almost always involved, and if present at all is likely to be found there.

When attending his clinique in the St. Louis Hospital, Paris, I saw a woman suffering from complete analgesia and anæsthesia of the dorsal surface of the hands and upper surfaces of the mammæ.

On the other hand we observe similar sensory phenomena in leprosy; and it is well to remember that anæsthesia is not by any means a constant symptom at the beginning of this disease. There may be hyperæsthesia, anæsthesia, analgesia or complete loss of any kind of sensibility. In rare cases one finds the sensation normal in the centre of the lesion and the periphery anæsthetic or the reverse. In other cases, according to Leloir, one finds the disappearance of certain forms of sensibility and the preservation of others, *i.e.*, analgesia present and tactile sensibility preserved.

Absence of thermic sensibility is rare, but present sometimes with analgesia. Then, again, the sensory disturbance may be only temporary, or it may not be distributed over the tegumentary lesion, but in the area surrounding apparently normal skin.

It is clear that with these points before us we cannot diagnose between the two maladies from the sensory disturbances alone. In all cases careful inquiry into the history and pathological coincidence should be made to clear up the doubtful nature of the lesion, and one should never lose sight of the series of phenomena which always characterize the involution of syphilitic tubercles, which the practised eye can easily recognize.

2 Lyons' Terrace, Liverpool-st., Hyde Park,
Sydney, February, 1892.

TWO CASES OF TUBAL PREGNANCY —OPERATION—RECOVERY.

By Edward T. Thring, F.R.C.S. Eng.

Case I.

Mrs. C., *æt.* 25 years. Has been married nine years; has had three children at full time; one miscarriage, at the eighth week, in July, 1892; then menstruation was regular up to the end of October, 1892. Patient then missed one period and thought she was pregnant. She remained quite well until December 20, 1892, when, after doing a heavy day's washing she was seized, at about 8.30 p.m., with sudden, very severe, abdominal pain. She became pulseless, collapsed, and extremely anæmic. After a few hours she rallied somewhat; pulse was then 120 per minute. On the following day, December 21, she was still a little better, and in less pain. On December 22 she was admitted to the Prince Alfred Hospital. On the afternoon of December 23 I saw her for the first time, her condition then was as follows:—

Temperature, 101°F.; pulse, 120, compressible and small; expression anxious, though she said she was not in much pain; face, lips, and finger nails were blanched.

Abdomen somewhat distended, extremely tender on pressure, especially over left iliac region.

Vaginal Examination showed cervix in normal position, rather soft. In Douglas' pouch, and slightly to the left, there was a feeling as though a soft, smooth mass slipped from beneath the examining finger. A satisfactory bi-manual examination was impossible, owing to the tenseness and tenderness of the abdomen.

The case was believed to be one of ectopic gestation, with rupture of the sac and hæmorrhage into the peritoneal cavity. Immediate operation was decided upon.

Operation.—Abdomen opened in middle line, through sheath of rectus muscle. The peritoneum bulged forwards, and on opening it a great quantity of dark fluid blood gushed out, the whole peritoneal cavity being full of fluid and clotted blood.

The right Fallopian tube was found to be tensely dilated with blood-clot; it had ruptured on the posterior surface, about the middle. The layers of the broad ligament were separated by clot. The end of the tube was curved downwards and behind the uterus in Douglas' pouch; it was not fixed, and there were some fimbriæ showing at the distal extremity. The broad ligament was transfixed with a double silk ligature. On tightening this the Fallopian tube and upper part of the broad ligament were cut through by the silk.

This was due to the extremely soft and œdematous condition of the uterus and its appendages, especially on the right side. The coils of intestine also were pale and œdematous-looking. The cut Fallopian tube and vessels in the broad ligament were picked up and ligatured separately. The round ligament was left intact.

On the left side the Fallopian tube and ovary were adherent to each other, and also to the bottom of Douglas' pouch; the adhesions were old and string-like. The tube was dilated to about the thickness of one's thumb; the abdominal end was not completely occluded, one or two fimbriæ still projecting, and fluid blood was oozing from the end. The broad ligament was transfixed and ligatured, and the tube and ovary removed, the round ligament being left intact. The uterus itself was somewhat enlarged.

The abdomen was irrigated with warm water and a glass drainage tube was used. This was removed after 24 hours. By that time there was scarcely any fluid; the temperature had become normal; the bowels were relieved by enema; and the patient made a straightforward recovery from that time onwards.

On examining the specimens removed, the right tube was found distended with blood-clot; there was a rupture on the posterior surface. On opening there was a cavity lined by a distinct membrane, and to one side was attached a shapeless whitish-yellow looking mass. Further examination was deferred in order that a careful dissection might be made; unfortunately, however, it was thrown away before this was done. The tube and ovary belonging to the left side were as described above.

CASE II.

Mrs. McR., *æt.* 33 years. Married fourteen years; has had four children—the youngest is now seven years old. No miscarriages. There is a history of uterine trouble and gonorrhœa two years ago. On November 20, 1892, she had abdominal pain accompanied by a bloody discharge. This was thought to be a miscarriage, and the patient was treated accordingly, by rest in bed and various drugs. No ovum was passed, or anything of a membranous character.

On November 30, 1892, patient was seized with intense abdominal pain running into vulva and through to rectum and anus; there was alarming collapse, from which it took several hours to rally.

On December 1, 1892, a vaginal examination was made, when a tumour was found in Douglas' pouch, behind and to right of uterus. It was so tender that bi-manual examination was impossible. Under rest and treatment things gradually improved until December 18th, when there was a second attack of pain and collapse, though not so severe as the first. There was again bloody discharge from the vagina.

December 23.—The general condition had improved. Abdomen still tender. Per vaginum.—The tumour was found to be larger than before, and placed well to the right of the uterus, the fundus being pushed over to the left of the median line. Both tumour and uterus could be felt bimanually. Still some discharge of fluid and clotted blood, accompanied by uterine pain, but no decidua.

The above very clear and distinct history was taken by the patient's medical attendant previous to her admission to the Prince Alfred Hospital on December 31, 1892.

State on Admission.—Temperature 99·4; patient complaining of abdominal pain. There was a distinct prominence in right iliac region, oval in shape, dull to percussion, and fixed. Per vaginam: The whole uterus was pushed over to the left, and in right fornix there was a large mass bulging into vagina and continuous with the tumour felt in right iliac region.

It was decided to do abdominal section on Friday, January 6, 1893. At 9.30 a.m. on this day patient had a third attack of pain and semi-collapse. This occurred while at stool.

Operation.—On opening the abdomen the omentum was found adherent in all directions. On separating them, the tumour above described was found placed between the layers of the broad ligament on the right side and pushing uterus over to left. There were extensive, very vascular adhesions both to intestine and pelvic wall. There was no tumour on left side, but the abdominal end of left Fallopian tube was closed by old inflammatory effusion, and was firmly adherent to the corresponding ovary, and both were adherent to the bottom of Douglas' pouch. On proceeding to separate the adhesions, which fixed the mass on the right side, there was a good deal of bleeding, and the peritoneal covering on the posterior surface gave way, allowing the escape of a fœtus of about the tenth to the twelfth week. The broad ligament was transfixed and ligatured as in case No. 1, and the whole mass removed. The adhesions binding down the appendages on the left side were separated, and the tube and ovary were removed.

On examining the parts removed, the mass from the right side showed the Fallopian tube coursing over the upper and inner part, thinning out towards the distal extremity and forming with the folds of the broad ligament the walls of a cyst, which was tensely distended with blood-clot. There was a rupture at the posterior and lower part, through which a distinct bag of membranes could be seen projecting. The ovary was attached to the posterior surface. The left tube and ovary were as described above.

These two cases are each of them typical of varieties of tubal gestation. Case No. 1 should perhaps be called a tubal mole, inasmuch as there was no formed fœtus found, but only a shapeless decolourized mass contained within a bag of membranes. It is, I believe, rather unusual for such a case to run the course which this one did. The growth of the ovum being arrested, there is less liability to sudden severe bleeding, such as did occur in this case. There is very little doubt that the heavy day's work, which immediately preceded the hæmorrhage, was the determining cause of it.

Although in this case there is no history given of gonorrhœal infection or chronic pelvic trouble of any kind, the evidence of old pelvic peritonitis, as shown by the adhesions binding down the left tube and ovary, was very plain; and there is little doubt but that the right tube had also suffered to some extent, although probably the extent of the damage on the right side had been less than on the left—one might say unfortunately for the patient, because had the distal end of the tube been completely glued up there would have been no possibility of an ectopic gestation, and the patient would have been saved the very great danger to life with which she was threatened.

With reference to the removal of the tube and ovary on the left side, it was, I think, distinctly indicated for two reasons: First, because the appendages were functionally useless; and secondly, because if left they constituted a distinct source of danger, not to speak of the continual pain and discomfort usually caused by adherent tubes and ovaries.

Case No. 2 was absolutely typical of the course usually followed in instances where tubal gestation goes steadily on up to the time of primary rupture of the tube. That the same alarming hæmorrhage into the peritoneal cavity did not take place in this case, as happened in case No. 1, was due due to the presence of somewhat firm and vascularized adhesions limiting the extent of the bleeding. In this case, as in the former one, the uterine appendages of the left side were removed, and for similar reasons.

The diagnosis in case No. 2 was very much more easy than in No. 1, because the history and physical signs supported one another so well. In case No. 1, on the other hand, the physical signs were very slight as far as the abdomen and pelvis were concerned. The chief points in guiding one to a correct diagnosis were the history, the extreme pallor, and the frequent soft pulse.

181 Macquarie-street, Sydney, February, 1893.

CASE OF DEATH FOLLOWING BLUE GUM (*EUCALYPTUS GLOBULUS*) OIL.

By ALFRED NEALE, M.D., OF NEW NORFOLK, TASMANIA.

THE particulars of the following case I am anxious to put before the profession, as I have no experience of the toxic effect of the oil and it is not regarded by the public as dangerous.

On March 2 I visited V. B., aged ten, stated to be poisoned with eucalyptus oil. On arrival I found him dying; lips and gums colourless; chest and neck rigid; the breath coming in gasps; and the pulse too feeble and rapid to count. He died in twenty minutes.

The history was that several of the family had colds; that at 9 o'clock on the previous evening the boy, who was quite well, took some blue gum oil as a preventive, stating the same to his father, and went to bed. In a few minutes the father was attracted by his gasping for breath, and went to him, when the boy vomited heavily. This relieved him, and he breathed well for about an hour, when gradually the struggle for air came on again and increased until his death, 15 hours after the ingestion of the oil. There was no purging, only one vomit, no convulsion; he got out of bed once after he had vomited to take a drink of water. He spoke rationally several times up to within an hour of death; once complained of pain in the right axillary line above the liver; relieved at once by a poultice.

The inquest showed that a little over half an ounce had been taken, and that nothing else could have been taken.

The court adjourned for an hour to enable me to open the body, and the appearances were as follows:—Forty-eight hours after death, *post-mortem* congestion was well marked over the whole back and neck and on back and front of all limbs; the abdomen and loins were greenish; no corrosive marks in mouth or pharynx; stomach much distended with gas (foot in length) and on perforation collapsed to less than a third. It contained a small quantity of thick, yellow, odorless fluid (kept for examination). The outer surface white, except for a staining where it adjoined the spleen; inner surface white, thickened and puckered as if painted with a mild solution of carbolic acid; not brittle; liver, spleen, kidneys and bowels healthy. Pleural cavities contained a quart of serous blood; serum not flocculent; no lymph on pleuræ, nor thickening; both lungs collapsed, firm and bloodless, coloured in large patches of pink and white, except posteriorly, where stained with pleural fluid. Right heart contained frothy liquid blood; the left empty and contracted; the brain soft and pulpy, the membranes only being full of blood.

Since the inquest I have heard of several authenticated cases where serious symptoms have followed a dose of one drachm of eucalyptus oil—in all instances with catching of the breath—and followed by recovery.

Martindale quotes that 80 minims may be taken in two-and-a-half hours, and that it is not so poisonous as carbolic acid. I cannot find any instance reported of death following any dose.

The particular oil was Miller's brand, made in the neighbourhood, and of good repute.

[THIS is a case of very great interest, as it raises the question of the toxic effect of large doses of eucalyptus essential oil.

We know of no recorded cases of poisoning by this drug if we except one reported early in March by Dr. Croker, at Geelong, in which a dose of an ounce is said to have accelerated the death of a bookmaker named James Noonan. The description given of the *post-mortem* appearance of the stomach supports the view that a dangerous quantity of the oil had been taken. The amount of pleuritic fluid was undoubtedly great, but from the description given it appears to have been very recently effused. Crucial experiments should be made to determine the toxic power and mode of deleterious action of this frequently used drug.—ED. *A.M.G.*]

PODALIC VERSION IN FLAT PELVIS.

BY W. R. CLAY, L.R.C.P. LOND., M.R.C.S E.

◆

MRS. G., aged 34, has the following history:—Her mother died, aged about 27, from exhaustion in her fourth confinement. Some contraction was said to be present. Mrs. G. married at 23 years of age. Her first child was born a year after, and the second 18 months from the first. The children were small, and both labours were tedious. After this her husband died, and she was a widow for five years.

At 3 a.m., December 4, 1889, I was called to attend her. The os was well dilated, but the head did not engage the pelvis. During the next twelve hours the head came down slightly, but appeared to be fixed at the brim. With the assistance of my colleague, Dr. Lamrock, chloroform was administered, and the child extracted with very great difficulty and much bruising to the maternal structures. The child survived, although for some days it appeared to be dying. The mother suffered much from shock, and her condition gave rise to some anxiety during the first week.

When she had quite recovered I examined her, and confirmed the opinion that she suffered from a contracted brim, the diminution being mainly in the antero-posterior diameter, the sacrum, as is the case in "flattened pelvis," being very prominent.

On May 24, 1891, I was called to attend her again. On my arrival the os was well dilated. The membranes had been ruptured for more than an hour. The pains had been strong, but the head had not engaged the pelvis. I waited half-an-hour, and found everything *in statu quo.* Then without any anæsthetic I immediately passed my hand into the uterus and brought down a leg; the rest of the child easily followed.

Mother and child passed through the puerperal period most satisfactorily, and the contrast between the two labours was very marked.

For the third time I was sent for on March 14, 1893, and found that she had been in labour about four hours. The membranes had ruptured an hour previously. The os, which was very high up, was well dilated. The head presented, but one arm could be felt through the posterior vaginal wall in a very threatening position. Again, without chloroform, I proceeded to turn. I experienced rather more difficulty with the shoulders and head than on the last occasion, and the child was stillborn. The child was a large one, and was very much larger than any of her other babies. The patient passed through a natural puerperum.

With regard to the loss of the child, I feel convinced that it would not have survived extraction with forceps, and also that such a proceeding, if possible at all, would have been a very serious one for the mother.

My object in recording these notes is to mark the contrast between delivery with forceps and delivery by turning in this case of flattened pelvis with a diameter of from three to three and a half inches. I was called in each case at about the same period of the labour, and by resorting to turning in the second and third I prevented some hours suffering, and much more safely helped the patient through her trouble. The loss of the child in the third case does not, in my opinion, under the circumstances, militate in the least against turning.

There seems to be some difference of opinion among authorities on the question of forceps or turning, but this case proves to my mind that, in cases similar to the above, where the head is not inclined to engage the pelvis, or after having engaged it there is no further progress, turning is the safer and quicker process. The question of the induction of premature labour does not enter the scope of these notes.

Arncliffe, Sydney,
March 23, 1893.

ON THE TREATMENT OF DIPHTHERIA WITH PILOCARPINE.

By Eugen Hirschfeld, M.D. Strassburg, Honorary Bacteriologist to the Brisbane Hospital.

In a previous article in this journal the internal administration of antiseptics in the treatment of diphtheria was discussed at length. In considering the local use of antiseptics we have to refer to the pathological changes that are taking place at the seat of the diphtheritic inflammation. When speaking of diphtheritic inflammation we must always remember that the process thus designated is not an inflammation, but rather a necrosis of the epithelium that presents all the characteristics of the so-called coagulative necrosis. Under the mediate or immediate influence of the bacillus diphtheriæ the superficial layers of the epithelium become necrotic; the nuclei of the cells disappearing, the cells themselves are transformed into albuminous detritus. These remnants of the cellular protoplasma, together with the exudation poured forth from the lower strata of the mucous membrane, form a more or less wide mesh-work of fibrine coagula, in the interstices of which a few surviving epithelial cells with nuclei, some leucocytes, heaps of micrococci, may be found, and which constitute what is briefly termed the diphtheritic membrane. Underneath this membrane that sends long connecting filaments of fibrin into the underlying tissue is the mucous membrane in a more or less inflamed state. Generally we find a line of demarcation between the healthy and necrotic tissue consisting of a very great number of white blood corpuscles that have emigrated from the engorged bloodvessels. If the illness terminates favourably the number of leucocytes in the zone of demarcation underneath the diphtheritic membrane increases until pus is formed, thus effecting the detachment of the necrotic slough. *The natural healing is, therefore, brought about by the reactive inflammation underneath the false membrane, by which leucocytes are poured forth from the mucous membrane in sufficient number to loosen and cast off the diphtheritic deposit.* Quite apart from the cases where it is necessary to remove the necrotic membrane artificially in consequence of mechanical obstruction, it must be our therapeutic endeavour to imitate the process indicated by nature by furthering the reactive inflammation.

From this standpoint it becomes quite apparent that any caustic or strong antiseptic solution that is being employed locally with the view to destroy the bacillus diphtheriæ will be detrimental. In no case it will be possible to destroy all the deeply embedded nidi of the bacilli, which are the cause of the mischief. But at the same time the whole surface of the mucous membrane infiltrated with the salutary leucocytes will be severely burned, and necrosis of its superficial layers will be induced. The necrotic area in the epithelium caused by the action of the specific microbe will thus be enlarged by the necrosis produced by the caustic, while the natural means of getting rid of the slough, the leucocytes, are destroyed or damaged. For these reasons we have to be extremely cautious when employing caustics or concentrated solutions of antiseptics in the local treatment of diphtheria. That, of course, has no reference to the use of weak solutions of disinfectants, as chlorate of potash, bichloride of mercury, or carbolic acid, &c. On the contrary, they act very beneficially in checking the decomposition that is constantly going on in the diphtheritic membrane, as evidenced by the great number and variety of putrefactive micro-organisms contained in it, thus preventing toxalbumines from being formed and absorbed into the circulation; but the application of strong antiseptics must certainly be deprecated.

With regard to the internal administration of drugs I have to record very favourable results with pilocarpine. This drug was first introduced into the therapeutics of diphtheria by Dr. Guttmann about ten years ago, and its use became since that time more and more widespread in Germany, while many other remedies had been brought forward in the meantime and forgotten.

In England, pilocarpine met with but little favour. Lennox Browne speaks in his text-book as follows: "On account of the danger of depressant drugs I would not advise either internal or hypodermic administration of pilocarpine or other agent which should produce diaphoresis at any stage, as has been practised, and with report of good results, by continental practitioners." I think that these unfavourable opinions may to a great extent be attributed to the fact that, owing to the original recommendation of Guttmann, too large doses have been used of this powerful alkaloid. However, by clearly laying down the different indications and contra-indications for its use, the ill effects of the drug may be avoided and only favourable results obtained, as has been my experience after an extensive use of the remedy both in Germany and Australia. It certainly is quite useless in a far-advanced stage of the disease, but when used in the first days of the illness as soon as the white deposits have made their appearance on the tonsils, there will be very few cases in which a more serious development cannot be prevented. I should like to point out that pilocarpine was introduced into the practice on account of the good results obtained by its employment, not by theoretical considerations. I am quite aware that just in diphtheria such good results reported to be obtained may be extremely fallacious, but the improvement in the condition of the patient accompanies the symptoms produced by the pilocarpine so closely that one cannot help coming to the conclusion that the latter is the cause of the former. Theoretically its usefulness may be explained very readily. In consequence of the increased salivation the natural process of the detachment of the diphtheritic membrane as described above is being assisted. Epithelial cells derived from the buccal mucous membrane are found in the saliva of healthy persons. If the secretion is stimulated artificially, whole epithelial layers may be discovered on microscopical examination. It is therefore only natural to assume that not only normal epithelial cells are cast off, but the necrotic epithelial cells that constitute the false membrane, especially since its detachment has already been prepared by the reactive inflammation of the underlying mucous membrane and the consequent amassment of leucocytes. The simultaneous engorgement of the bloodvessels of the mouth, produced by pilocarpine, favours the emigration of the white blood corpuscles that are required to contend against the invading bacillus diphtheriæ. At the same time the intense perspiration brought about by the drug greatly assists in the elimination of any ptomaines and toxalbumines that had been formed by the microbe.

However, the employment of pilocarpine does not render the use of other remedies unnecessary, and great attention must be paid to the different symptoms as they are found to be present or arising. I generally act as follows: A strong purgative is given in the first instance, calomel together with compound powder of jalap, while the pilocarpine mixture is prescribed at once. If the child is able to gargle, chlorate of potash is chosen for the purpose; if not, attempts should be made to make it gargle with some boiled water, to which some table salt may be added. If the patient is too young it is not advisable to add the table salt, because he will be likely to reject the gargle on account of its taste. Externally a moist compress may be applied in the ordinary way, over a napkin dipped into cold water and wrung out, a piece of waterproof sheeting or guttapercha paper, that to be covered by a roll of flannel; the moist heat favours the resolution of the diphtheritic deposits.

With regard to diet, milk should form the principal food of the patient, which may be taken either pure or preferably mixed with equal parts of soda or spa water; a teaspoonful up to a tablespoonful of brandy may be added to the milk. A raw egg swallowed whole eases the patient sometimes considerably. To counteract any depressing effect pilocarpine may have upon the heart, stimulants are strongly to be recommended; wine is in my opinion preferable to whisky or brandy given neat. I found the Queensland wine very serviceable.

There are several official preparations of pilocarpine, which may be divided into two classes: 1. Such as are prepared from the original leaves of *Pilocarpus pennatifolius—infusum, extractum*, and *Tinctura Jaborandi*; 2. The salts of the pure alkaloid itself, pilocarpine, that represents the active principle contained in the plant. The preparations obtained from the *Jaborandi* leaves cannot be recommended for therapeutical use, though to judge from their number contained in the Pharmacopœia, they seem to have met with more favour than pilocarpine. In the first place they are uncertain as to the quantity of the alkaloid contained in them; secondly, they contain beside pilocarpine another alkaloid, Jaborine, which has an effect exactly opposite to pilocarpine, and to which most of the unpleasant results observed under the exhibition of *Jaborandi* leaves must be attributed. Merk first isolated from the leaves the alkaloid and its hydrochloric acid compound, the *Pilocarpinum muriaticum* of the German Pharmacopœia. The official English preparation is the nitric acid salt. Both compounds are white crystallizable powders that dissolve readily in water. The original formula advised by Guttmann for a child about five years of age was:—

℞ Pilocarpin hydrochl. gr. ½
Pepsin gr. 10
Acid hydrochl. ♏. ij
Aqu. ad ʒxxij.
S. A teaspoonful every hour.

But in the majority of cases it is not necessary to administer as much pilocarpine as recommended above, though children bear the drug comparatively better than grown-up people. The individual susceptibility to the alkaloid varies to a very great extent, and I think it far better to feel one's way by beginning with small doses, and only increasing them if they prove insufficient in attaining the result desired, namely, perspiration and salivation. It will thus be possible to avoid in nearly all cases the ill effects reported by other authors who employed too large doses at the beginning. It is advisable to combine every dosis of pilocarpine with some alcohol to counteract any depressing effect and to correct the taste with syrup of orange, which generally proves agreeable to the little patients. Thus for a child six years old:—

℞ Pilocarpin. gr. ⅓
Spir. vin. gall. ʒiv-℥i
Syrup aurant ℥i
Aqu. ad ℥iij.
S. One teaspoonful every two hours.

As a rule that will be sufficient for the purpose; if not, it can readily be increased and taken every hour. The action of the medicine is generally very satisfactory. The physiological effects of the pilocarpine—sweating and salivation—begin to show themselves sooner or later, according to the individual susceptibility to the drug, generally within 12 hours. The temperature goes down as soon as perspiration has fairly set in, while the casting-off of the false membrane often takes place in surprisingly quick time. It is not advisable to discontinue the pilocarpine at once, but break it off gradually.

The objection that may be raised against the use of any drug in diphtheria, namely, that it cures only slight cases that would have got better without any treatment, may also be raised against pilocarpine; but a case that a few months ago occurred in my practice certainly points the other way. A child died of diphtheria in the Children's Hospital. A few days afterwards the mother of this child complained of sore throat, and the following day two other children of the same family were attacked with the same complaint, the mother having evidently been the medium conveying the infection from the first child to the other children. The inspection of the throat left no doubt as to the nature of the case. The treatment as described above was immediately instituted, with the result that the diphtheritic membrane had disappeared in every case within three days.

Various untoward results have been reported by various authors, but that is generally due to incautious use of the drug, more particularly to the administration of too great doses. I personally saw unpleasant symptoms arise in only one case a few years ago in Germany.

During an epidemic of diphtheria that was raging at Frankfort, a schoolmaster brought the disease home from his school, and infected his wife and four of his five children. Pilocarpine was prescribed for all of them—the same mixture, but the different patients had, of course, to take different quantities. By mistake the mother took four or five doses of exactly double the quantity she was ordered—a tablespoonful instead of a dessertspoonful—when suddenly a strong anxiety overcame her. She began to vomit and looked very pale. The pulse was 120, but regular. All these symptoms disappeared so quickly when the pilocarpine was discontinued that the medicine could be resumed on the evening of the same day.

Contra-indications against the use of the alkaloid of the *Jaborandi* leaves are: Organic diseases or fatty degeneration of the heart. It is wise to watch the pulse closely, and note at once any undue acceleration which, together with the retching, usher in the pilocarpine poisoning. If such should have taken place, it is necessary to stop its administration immediately. The alarming symptoms will disappear very quickly with the suspension of the drug. But I repeat: No ill effects will be observed if the quantity of pilocarpine administered is kept within certain limits. The German Pharmacopœia allows as maximal dosis for the adult gr.½ per single dosis, and gr.i. per diem of the muriatic salt of the alkaloid. In strong pilocarpine poisoning, atropia must be used as antidote, but I do not think that any medical man would push the drug to that extent.

STRYCHNINE IN SNAKEBITE.

By T. E. Smyth, M.D., &c., Trin. Coll. Dubl., Gov. Med. Officer, Campbelltown, N.S.W.

◆

F. W., aged ten and a half years, was bitten on the dorsum of the left foot at 10 a.m. 8th December last. He was then over a mile from his home, so his father, whom he was accompanying on a shooting expedition, immediately scarified the wound and applied a ligature below the knee.

The boy then started to walk home, and when about half-way he got a violent pain in the stomach, and commenced to vomit. He managed to walk the remainder of the way, and on arrival he was given a glass of brandy and water, which he vomited at once.

I was then sent for, and when I got to the house I was told "that the boy had just had convulsions, was vomiting blood, and that they thought it was all over with him."

I found the patient in a semi-comatose condition on the verandah, lying on his back.

He was extremely pale; skin cold and moist; respirations hurried; pupils widely dilated and with but little reaction to light; frequent vomiting mixed with blood. Temperature 95·8; almost pulseless.

11 a.m.—I injected subcutaneously 15♏ liq. strychniæ B. P., and five minutes later the patient roused himself and said "he did not feel so sleepy," and his appearance began to improve.

11.30 a.m.—Still vomiting, blood increasing in quantity.

11.45 a.m.—Complained of headache and felt sleepy again.

12 a.m.—Had a return of all the previous symptoms. Temperature 96; pulse 114. I injected 12♏. liq. strychniæ B. P.

12.5 a.m.—Felt better, but vomiting continued.

12.30 a.m.—Had a second attack of convulsions.

1.45 a.m.—Greatly improved; vomiting ceased.

Sat up and took a drink. Temperature 99; pulse 12.4.

4.30. a.m.—Feels well; temperature normal; pulse 116.

I saw the patient again at 10 p.m. He had then had two hours sleep and was going to have some solid food. The following day he was quite well and running about, and said he was none the worse of his snakebite.

CLINICAL MEMORANDA.

SUPRA-PUBIC LITHOTOMY—FORTY-THREE CALCULI REMOVED.

By Ernest Sheaf, F.R.C.S., Edin., Consulting Surgeon to the Toowoomba Hospital, Queensland.

B. J. B., a gentleman of 56 years of age, whose occupation is sedentary, health generally good and habits temperate and regular, suffered for many months from symptoms of stone.

August 14, 1892, he was carefully examined by Dr. Æ. J. McDonald and myself; a stone was felt which was considered to be a small one. On September 24 he submitted to operation. The lower bowel having been cleared, the patient was put under chloroform by Dr. Freshney. The rectum was moderately distended by Barnes' bag, and the usual supra-pubic operation was performed. A small opening was made into the bladder and the index finger introduced; in a pouch behind the prostate, stones could be felt. These were lifted out of the bladder one by one, between the point of the index finger and a small scoop, to the number of forty-three. They were all of about the same size, viz., of rather small cherry stones. Three stitches were used to bring the lower part of the wound in the abdominal parietes together, and an opening was left in the upper part of the wound, into which a drainage tube was inserted —but not into the bladder, although the latter was not stitched. The progress towards recovery was uneventful. A minute sinus from which a drop of urine oozed gave some trouble for weeks, chiefly on account of the depressing effect on the mind of a nervous patient. He is now convalescent, and for more than a month has followed his usual business.

February 25, 1893.

Copies of reprint of Mr. Bruck's paper on "The Present State of the Medical Profession in Australia, Tasmania, and New Zealand," in last month's issue of *The Australasian Medical Gazette*, may be obtained *gratis* from the publisher of this journal by gentlemen desirous of sending copies to their medical friends in the old country.

PROCEEDINGS OF SOCIETIES.

QUEENSLAND MEDICAL ASSOCIATION.

The Third General Meeting of the Queensland Medical Association was held on Thursday, March 9, when there were present: The Hon. W. F. Taylor (President), in the chair, Drs. Lyons, Jackson, Comyn, Connolly, Thos. L. Bancroft, Hirschfeld, O'Doherty, and Peter Bancroft (Secretary).

The minutes of the previous meeting were confirmed.

Drs. Comyn and Tilston were elected Auditors.

Dr. Taylor then read the following

Inaugural Address.

Gentlemen,—This Society being fully formed, and the officers having been duly elected, it is only fitting that I, whom you have honoured by appointing to the office of President, should offer some observations on the objects of the Association and the duties which devolve on each one of us as individual members.

The aim of this Society is to become the Queensland Branch of the British Medical Association, and the necessary steps having been taken, no doubt in a few months from now this will be an accomplished fact.

It is not my intention to-night to enter into a description of the advantages which must follow on the affiliation of this Association to such a well known, world-wide Association as the British Medical, nor were I inclined to do so do I feel myself competent to fulfil the task; but I would like, with your permission, to point out some of the benefits which may accrue to each of us from meeting together at stated periods and discussing the cases which may be brought before us for our examination, and criticizing the papers which may be read. Few, if any, present can feel as I do the advantages which these opportunities present, for few, if any, have spent such a long period of professional life in places where, not only was there no medical society, but where sometimes there was not even a medical man with whom I could exchange ideas or on whom I could depend for assistance in cases of extreme emergency. It is no wonder, then, that with all the help one could obtain from reading books and journals, that with every desire and inducement to do one's duty to one's patient, the feeling of doubt would sometimes arise, when all was over, as to whether the best had been done under the circumstances to preserve life or limb. To the conscientious man the feeling of responsibility would lead to such anxiety as sometimes to imperil that calm judgment under all circumstances which alone can fit one to do one's duty properly. How often, when worried over a case, have I not yearned for even a hint from someone, lay or professional, that would help me to shape the tenor of my thoughts? and often have I got a hint, even from some relation or friend of the patient putting a question to me. To the country practitioner then, a society of this sort affords advantages which are second only to those enjoyed by the members who attend the meetings, for he may, by sending either a paper on some subject which particularly interests him, or the details of a case which presents some points of obscurity to him, derive the benefit of having such paper or case fully discussed in this Society. During my earlier professional career I should have hailed with delight such an opportunity had one offered. Our aim should be, therefore, not only to induce country practitioners to join our Branch, but also to persuade them to send as often as possible records of cases, no matter how apparently commonplace they may be. My Professor of Midwifery used to say that there was no case of labour, however natural, but was capable of affording some instruction. So there is no case of accident or disease which is incapable of affording instruction to those who may go fully into it and prepare a careful report respecting it. By inducing our brethren in country towns to make such reports much valuable material which at present only goes to enrich individual experience might be made useful to many. And this suggestion applies equally to our brethren in Brisbane and vicinity. There may possibly be the feeling that a certain case, being devoid of any particular feature of interest, is not worth reporting; this is a decided mistake. The great bulk of our practice is made up of cases which do not present points of particular interest to us, but every such case is of marked interest to the individual suffering, and as the aim of such individual is to get rid of the ailment as quickly and effectually as possible, so it must be the aim of each one of us to acquire such an increased familiarity with the nature and treatment of common ailments as will enable us to relieve our patients quickly and effectually, and this can be facilitated by reporting and discussing everyday cases at our meetings. The further benefit to ourselves will be the cultivation of habits of close observation and an increased aptitude in recording all the particulars of a case, and thereby impressing them on our memory for future use.

Possibly some members may be deterred from reporting a case or reading a paper for fear of adverse criticism. To such I would say, no amount of criticism can alter facts, and if one is sure of one's facts others may be allowed to draw from them what inferences they choose. I have noticed at times in other societies a certain amount of intolerance of criticism manifested by the member reporting a case or reading a paper. Now this appears to me to be quite wrong, for although the critic may have a much inferior general knowledge of the subject criticized than the author of the paper or report, still he may have a tolerable acquaintance with certain points, and may upon some other subjects be able to speak with a degree of authority, consequently his opinions should be received with a certain degree of at least forbearance, if not of consideration. Of course, if the bounds of fair criticism be exceeded, or any attempt should be made to hold up the author of a paper or the opinions expressed in it to ridicule, the member so offending would justly incur the censure of all present. Let our main object in meeting together be the dissemination of what knowledge we possess, for by so doing we not only benefit others but do our plain duty. Knowledge is given to us that we may use it for the good of our fellow creatures, and the more widely we disseminate it the more faithfully do we discharge our trust. This has been one of the principles which has actuated honourable members of the profession in all ages. They have fully recognized the responsibilities which the attainment of knowledge brings with it, and have always endeavoured to make that knowledge as widely known as possible, so that the greatest number may be benefited thereby. The man who, having made any discovery of value, seeks to use it for his own ends only, is justly held in contempt by all right-thinking medical men. Our aim, then, as members of a Branch of the British Medical Association, should be not only to instruct one another, but to devote as much time as we possibly can spare from the duties of our everyday life to original research. This much will be expected of us at all events, that we should make ourselves fully acquainted with the peculiarities of our climate and the local conditions under which we live, and their influence in modifying or altering types of well-known diseases. This opens up a wide field of observation, which the private practitioner as well as the hospital physician or surgeon may freely engage in. By recording our individual experiences at our meetings we shall in time get together an amount of material from which valuable conclusions may be drawn. Let us bear in mind, therefore, that in becoming a branch of the leading medical association of the world we assume a grave responsibility, viz., that of maintaining the character of that Association for valuable and original work; and we assume a still further responsibility, viz., that of making our country of Queensland worthy of recognition by the medical world on account of work and labour done. This I feel confident we have the ability to do, and may do by earnest united efforts. And we have a comparatively virgin soil to work upon. Here in this new country we have opened out to us a vast field for exploration, not only in medical, but also in allied sciences. It is a scurce of congratulation to know that already workers have been in the field, that our country has been made known through the labours and researches of some of our residents, notably Dr. Bancroft in medicinal and economic plants, and in *Filaria Sanguinis Hominis*; Dr. T. L. Bancroft in medicinal plants; Wm. Soutter, F.R.H.S., F.L.S., and F. M. Bailey, in general botany. But our own particular branch of science has been, with the exceptions mentioned, barren of additions. It behoves us, therefore, to put our shoulders to the wheel and show the scientific world that we think of something more than the monetary aspect of our profession, that its scientific side is receiving due attention, and that in the near future the promise of better things is held out by us. But probably more has been done in this respect than I am aware of. Unfortunately we have no local journal devoted to professional subjects, and it is possible that much may have been done in original research that has not come under my observation, owing to the matter being reported in journals to which I have not had access; one appears to be much better posted up in what is going on in other parts of the world than in what is transpiring in our own. I do not think this should be. I am of opinion that a local medical journal would be of great benefit to the medical profession, not only as a means of making known work that is being done in our midst, but also as a medium through which matters affecting the medical profession and of public import could be discussed. We are all familiar with the unsatisfactory nature of any medical or quasi-medical discussion in the lay press. As a rule the question is either made the occasion of some shafts of ridicule levelled at the profession, or is treated in a one-sided manner by the editor. Had a medical journal existed during the last few years it would have contributed not a little to smooth down asperities and remove misconceptions (which should never have arisen) among members of the profession here. In the interests of science, in the interests of the public, and last, but not least, in the interests of the medical profession in Queensland, let us hope that steps will soon be taken to remedy this defect, and that before we celebrate our first birthday a journal, principally, if not wholly, devoted to matters medical, may be an existing fact among us.

I trust that our Society may be the means of fostering among its members and those of kindred societies a feeling of *esprit de corps*, which is very much wanted at present. It would be difficult to find the members of any profession, trade, or calling so wanting in unity as, unfortunately, we find the medical profession, not only here, but elsewhere. The trite expression, "Doctors differ," is too often illustrated, not in individual cases, for in these doctors who have a fair knowledge of their profession and some experience find no room to differ materially, but in questions of general importance to the profession at large. I do not advocate the formation of a trades-union, but I do think that where the best interests of the profession are concerned it is our duty to sink individual differences, if, unfortunately, we have any, and individual interests, and pull together for the common weal. The welfare of a community depends upon the welfare of each individual member of it. So the welfare of the body medical depends upon that of each one of us. Let us then rally round an unfortunate brother, and by our countenance and support help him to fight his way onward and upward. By so doing we will gain the approval of our own consciences and the esteem and consideration of the public. Why is it that so little consideration by public men is ever evinced towards the medical profession in this community? Because we are only known individually and not as a collective whole, acting together to promote the interests of health and the welfare of the people. Were we jealous of our honour and standing in the estimation of the public would any member of our legislative body dare to compare qualified honourable medical practitioners with heartless unprincipled charlatans, to the disparagement of the former and the commendation of the latter? No. Or if he had the unblushing effrontery to do so, he would bring upon himself the active opposition of every member of the profession to his return to public life, and with such success that he would be relegated to that political obscurity from which he should never have emerged.

It is our obvious duty then, not only as medical men but as educated citizens, to make our voices heard on all matters pertaining to the public good. The question of sanitation is one that should engage our constant attention, for it is incumbent upon us to practice preventive as well as curative medicine. And in the matter of preventive medicine we certainly have ample room here to exercise our abilities and bring our knowledge of sanitation into practice, for I do not think that there are many British communities so backward in ordinary sanitary measures of a public nature as our own. Why this is so is due to a certain extent to ourselves—to our want of united and energetic action. Considering the usual composition of municipal councils, it is not to be expected that any profound knowledge of sanitation should be shown by any one of them; and in this respect they certainly have not exceeded our expectations. But they are not wholly to blame in the matter, for a great measure of responsibility regarding the sanitation of a place must rest with the members of the medical profession residing in it. The public naturally look to the medical men of the place for instruction and guidance in these matters, and it is therefore the duty of each member of the profession to make himself sufficiently acquainted with the principles of modern sanitary science, as to be able to afford such instruction whether asked for it or not. True, we have a Central Board of Health supposed to be composed of experts, whose duty it is to advise in all sanitary matters; but the functions of that body are limited to meeting together when permitted by the Colonial Secretary, and dealing with such matters as are brought forward at the meeting. The Board possesses no executive powers, excepting in cases of emergency, and then it is doubtful if any action taken without the sanction of the Colonial Secretary would be endorsed by the Government. Two or three years ago, when diphtheria was rife among us, the Board drew up regulations dealing with the reporting of all cases, and isolating such as were necessary; but the Government of the day refused to sanction them, and did so, I believe, without consulting any medical authority as to their necessity or otherwise, but took upon themselves, although there was no medical man in the Ministry, to decide upon their suitability. Ministers took considerable kudos to themselves for their action in this matter, and did not hesitate to hold up the Board to condemnation in the Legislative Assembly for making such a request, one prominent member of the Government stating, that he knew a good deal about diphtheria, and that it was not at all necessary to use the precautions against its spreading recommended by the Central Board of Health. I must give all credit, however, to the present Colonial Secretary for the recognition which he has given the Board since he has been in office; but his successor may, like his predecessors, take very little notice of the Board, excepting on the passing of the Estimates through the Assembly, to abuse it. The Public Health Act in this, as in other respects, is unsatisfactory; but even so, much good might be done through it by efficient administration, and that will never be brought about while the present system exists. What there should be, is a Minister for Health, with a proper department having a permanent head fully qualified by his knowledge of sanitary matters for the position. Surely the question of the health of the public is as important as that of education, justice, lands, or any other department which has a Minister of the Crown at its head and a permanent Under-Secretary—at least one would imagine so, judging by the excitement which prevails when any supposed case of smallpox or cholera appears off our coast. Then quarantine, no matter how harsh or barbarious, is resorted to, and the Government are supposed to have done their duty to the State. The duty of the Government to the State consists as much in protecting the people against disease from within as from without by enforcing habits of cleanliness, and by the distribution of a supply of wholesome water, as in suppressing crime. How that duty is performed may be gathered from the fact that in the latter case a special department exists with a special Minister at its head; in the former there is no department, no Minister, and no proper executive authority. In Victoria the value of health and life is, apparently, more appreciated than here, for there a Department of Health, with a Minister of Health, exists.

Furthermore, this disregard of the public health manifested here is false economy. It is admitted by all politicians that population is the one thing needful for Queensland, and in furtherance of this object large sums have been spent in immigration in the past, and liberal grants of land are offered to immigrants in the present; but once the people are landed in our midst it appears to be a matter of indifference whether they are preserved from sickness and death or not. Each individual contributes a fair sum per annum to the revenue of the country by the consumption of dutiable goods; consequently each individual lost is also a direct loss to the annual revenue. From this point of view then, if from no humanitarian consideration, the disregard of the general health of the community is evidence of bad statesmanship. Let us endeavour to impress this fact in political economy upon our legislators, for it appears to me to be evident that this view of the matter has never appeared to them, if it has, then the results up to the present go to show that we have been blessed with a less intelligent lot than we have deserved.

As a Branch of the British Medical Association our functions will not be confined altogether to clinical work, but all matters affecting the welfare of the medical profession and relating to public affairs will come within the scope of our operations. Among others the question of establishing a University should be considered. As you are aware, some two years ago a Royal Commission was appointed to inquire into and draw up a report upon the subject. This Commission was actually appointed, and no medical graduate of any University included in it until at the last moment, through the representations of a prominent member of our profession, three medical men were appointed as members of the Commission. I mention this to show how little consideration or thought is ever given to the profession by the powers that be. Here was a body of men, representing by far the largest number of university graduates in the colony, actually unrepresented on a Commission created for the purpose of enquiring into the subject of university education. The opinion expressed by most of the medical witnesses examined before the Commission, and also by the medical members, which was embodied in the report, was to the effect that it would not be advisable to form a medical department until the University had been established for some years. The difficulties and expense attending such were gone into, and although it was considered possible to give instruction in the primary branches of medicine, it was ultimately decided that it would be better to wait until the school could be fully equipped. Nothing has come out of the labours of the Commission, and the establishment of a University is apparently relegated to the dim future. This, I think, is a pity; for there is no doubt that a university in a city raises the literary and scientific tone of the community. I am no advocate for increasing the number of medical degree-granting corporations unnecessarily. The constant influx of candidates for the medical profession is one which gives rise to much grave thought respecting the future material wellbeing of its members. The ratio of medical practitioners to the population is rapidly increasing in most countries, especially in Great Britain, Canada, the United States, and the Australasian colonies, where we have no fewer than four medical schools to a population of a little over 3,000,000. In the United States there is about one duly qualified medical practitioner to every 600 inhabitants, as against one to 3,500 in Russia, one to 3,000 in France, and one to 2,500 in Germany. In Queensland we have about one in 2,000. But notwithstanding this we must recognize the fact that a certain proportion of our youth will in any case choose the medical profession, and that at present they are obliged to go to the neigbouring colonies or abroad for their education. So that it would be better to educate our own students, thereby affording them certain advantages and obtaining certain benefits ourselves, than oblige them to leave us as at present. Furthermore, the fact of our having no medical school here will not materially lessen the number of medical practitioners practising in the place, for others will come from the neighbouring colonies and from the mother country, and seek openings among us. On the whole, therefore, I think that the arguments are plainly in favour of the establishment of a Medical School in our city.

The relation which diseases in our domestic animals bear to human diseases, the treatment of chronic inebriates, and other subjects will no doubt engage our attention; and I would suggest, in view of the importance of such, that the Society be divided into sections to investigate and report on these matters of public import. By so doing much good and valuable information will be obtained, and we will demonstrate the usefulness and importance of the Society to the community. May we all work then with a will to make this Medical Association of Queensland worthy of its proposed connection with the British Medical Association.

Dr. Lyons, in moving a vote of thanks to the President for his address, referred to the want of unanimity in the profession, which he thought responsible for the lack of political and social influence. He would like to see the profession represented in the Lower House.

Dr. Connolly seconded the motion, which was carried with acclamation.

Dr. Hirschfeld then read his paper entitled "Scleroderma and its Treatment."

An interesting discussion followed, in which Drs. Connolly, Jackson, Taylor and P. Bancroft joined.

Dr. Hirschfeld having replied, the meeting terminated.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

Minutes of special meeting held at Adelaide on 23rd March, 1893. Present: Dr. Way (President), Drs J. C. Verco, Borthwick, Rogers, W. A. Giles, Singleton, J. A. G. Hamilton, T. K. Hamilton, Clindening, Seabrook, Stirling, Hayward, Cawley, Michie, Lawrence, Lendon (Hon. Secretary), Cavenagh-Mainwaring, Stewart, Harbison, Morris, Corbin, Hynes, Gault and Marten; Dr. Sweetapple as a visitor, also Messrs. Millikin, Gunson, Sangster, Horne, Fisher, Cudmore and Corbin.

Apologies were received from Drs. R. K. Archer and W. Robertson.

Dr. T. K. Hamilton read the following paper relating to the recent action of

SABINE v. HAMILTON.

◆

Mr. President and Gentlemen,—You are all aware that the object of our meeting here this evening is to hear a statement from me of the case which led to the recent legal proceedings in the Supreme Court, Sabine v. myself, and the explanations which I and the gentlemen who kindly came to my assistance as medical witnesses have to offer upon it. Inasmuch as the case came to an abrupt termination, owing to a nonsuit being obtained, I had not any opportunity afforded me of stating my case for the defence and of calling my witnesses; therefore I most gladly seize this opportunity of bringing the case in its medical aspects before this Association, and through it before the profession in this and the other colonies. Before proceeding further, I wish, Mr. President, to thank you and the members of the Council of the Association for so kindly calling this special meeting of the Branch, and may I be permitted at the same time to return my sincere thanks to those gentlemen who took so much trouble in working up evidence, and who generously sacrificed so much time during the time the trial was proceeding to appear in Court on my behalf! I feel I owe these gentlemen a deep debt of gratitude for the support and help they have thus afforded me, and my special thanks are due to my friend Dr. Jackson, who came at great inconvenience from Melbourne to give me the benefit of his valuable assistance.

I am now about to submit the case to your consideration with any explanations which may appear to me necessary, and in doing so I shall endeavour to be as clear, and at the same time as brief, as possible. When I have this done I shall await your verdict in humble confidence, trusting that my conduct of the case will meet with your approval, and that I shall be able to feel that I have had in this, the greatest ordeal through which I have hitherto passed in my professional life, that which ought to be most dear to every member of our profession, viz., the confidence and support of my fellow practitioners.

I shall draw your attention to the notes of the case first.

Name.—C. E. E. Sabine; aged 26 years; born in South Australia; barrister.

History.—In March, 1886, he noticed when rifle shooting that he could not see the target, and in a fortnight afterwards, when reading in the train, noticed he could not see the print. Soon after this he found out that he could not see with his right eye except at night. At this time he was seedy and had a bad cough; had been working very hard, sitting up to a late hour and reading at night, as he could not sleep. Sight from this kept defective off and on, always worse when he was overworked. In September, 1887, when away for a holiday, his sight became much better; is of a neurotic family.

Present Condition.—Symptoms: Sight fluctuates considerably. When he is anxious to see he cannot see anything, and when he looks at an object long his sight diminishes. (This symptom came out in taking his fields with the perimeter). Has had positive scotoma occasionally. Optical impressions are not long retained. Hyperæsthesia of the retina, as light, dazzles the eyes and makes his vision defective; patient sleepless and easily excited.

Vision = Right $\frac{6}{24}$, and Jæger 10; left $\frac{6}{12}$ (partly), and Jæger 1.

Fields.—Concentric and irregular contraction for all colours; much more marked in right eye. (*Vide* charts.)

Insufficiency of internal recti about 5° prism. Inhalation of nitrite of amyl improves the vision.

Fundus.—Nothing found wrong, except perhaps slight indistinctness of margins of right disc, and it may be relatively paler than the left. (?)

Diagnosis.—Neurasthenic asthenopia.

Treatment.—℞ Strychniæ gr.$\frac{1}{30}$ in temple hypodermically; ammon. brom. gr.xx; suc. hyoscyami ℥i half-an-hour before bedtime.

April 8.—Strychniæ gr.$\frac{1}{24}$. (Needle boiled.)

April 10.—Vision = Right $\frac{6}{18}$ (half); left $\frac{6}{12}$ (partly). Strychniæ gr.$\frac{1}{24}$.

April 15.—Vision seems to become better; strychniæ gr.$\frac{1}{20}$; take only three-quarters of night draught.

Apirl 20.—Strychniæ gr.$\frac{1}{18}$; take only half of night draught.

April 27.—Strychniæ gr.$\frac{1}{16\cdot5}$; sulphonal-bayer gr.x; to be taken instead of the other draught at night.

May 8.—Strychniæ gr.$\frac{1}{14\cdot4}$.

May 10.—Vision = Right $\frac{6}{6}$ and Jæger 1 easily at 22c.m.; left $\frac{6}{6}$ (nearly) and Jæger 1 easily at 22c.m.

May 16.—Constant current (about three milliampères) commenced to be applied to the closed lids with sponge electrodes for 10 minutes three times a week.

May 27.—Vision = Right $\frac{6}{6}$ and Jæger 1; left $\frac{6}{6}$ (almost) and Jæger 1.

June 1.—Vision = Right $\frac{6}{6}$ (nearly) after the application of the electricity to the eyes; left $\frac{6}{6}$ after the application of the electricity to the eyes; refraction (c Homatropiâ) = + 1·5 D (both).

June 8.—Ordered + ·5 D both eyes, No. 1 blue tint, to be worn constantly.

July 2.—Eyes keeping much stronger, and he can read for a much longer time; vision = $\frac{6}{6}$ (both); fields normal. (*Vide* charts). C. current now twice a week.

July 4.—Strychnine stopped from this date.

July 21.—Sulphonal stopped; C. current continued.

August 15.—Vision keeps good, except when he is overtired and after he hurries about much; but he can now keep his vision fixed upon an object in a way he could not at first. Legs get easily tired, and he feels as if he were not sure of his feet. His back across the lumbar region feels tired and weak. C. current continued to eyes twice weekly, and the same current to be applied to his back and legs three times a week by an electrician.

August 23.—Still feels easily tired, but has felt some improvement since the electricity was commenced. There are no symptoms discoverable to suggest structural spinal change. His eyes keep well.

August 30.—Feels limbs, &c., very much stronger.

September 27.—Patient seen by Dr. Davies-Thomas in consultation, and he confirms my opinion as to the functional cause of his symptoms.

Such is the clinical record of the case out of which this action for damages against me has arisen. The plaintiff sought my advice about his eyes in April, 1889. I made a certain diagnosis, undertook the treatment of the case, and carried it out in accordance with this diagnosis. He remained under my care for nearly six months, during which time his eye troubles entirely disappeared under treatment, and now, at the end of nearly four years, he makes an attempt to recover damages for alleged unskilful and improper treatment. Gentlemen, the duty devolves upon me now to clear myself of this imputation, a duty which I owe alike to you, the members of my profession, and to myself as an individual member of the same. In order to do this I will ask you to follow me whilst I dwell for a little on some of the more important points of the case, the elucidation of which will, I trust, lead you to see that I have been the victim of a charge as groundless as it has been vexatious. I shall endeavour to prove to you:—

Firstly.—That my diagnosis was correct.

Secondly.—That my treatment was correct, suited to the condition as diagnosed, cautiously and judiciously carried out, and furthermore, a line of treatment supported, in every particular, by all the leading authorities; and

Thirdly.—That the symptoms alleged to have been caused by my treatment were in reality due to a diseased condition of the plaintiff's nervous system, and symptoms which could not have resulted from anything else.

First, as regards the diagnosis, Neurasthenic Asthenopia.—The points which confirm the correctness of this diagnosis are to be gathered from:—

- *a.* The history and general symptoms connected therewith, *e.g.*, changeable and uncertain vision in a young male adult of decidedly neuropathic tendency, perhaps congenital and inherited, and this defect of vision always worse when he is tired or overworked. The evidence of the further impairment of his nervous power by the strain of hard and continuous brain work. The sleeplessness, excitability, and the eccentricities displayed from time to time, and the fact that at periods of the illness the individual attacked was under the influence of certain psychical excitement (Meyer). Of this last we had evidence available.
- *b.* The symptoms more immediately connected with the eyes.
  1. The markedly diminished, but fluctuating, acuteness of vision, the effort or desire to see well being the signal for the acuteness of vision to fail, and functional examination rapidly causing retinal fatigue (Schweigger). This fatigue was manifestly due to deficient nutrition of the retina, for no sooner was the blood

pressure raised by the action of nitrite of amyl than the acuity of vision improved.

2. Attacks of defective vision with positive scotomata.
3. The concentric and irregular contraction of the fields of vision. Wilbrand has drawn special attention to this symptom,* and Priestly Smith has related cases in which he refers to this as a "spiral limitation," because if the fields be taken with the perimeter more than once they will be found smaller in each successive trial.†
4. The disease found in both eyes but in different degrees (Meyer).
5. The muscular asthenopia.
6. The accommodative asthenopia.
7. The hyperæsthesia of the retina.

The nitrate of amyl given by inhalation demands a passing note, as the plaintiff specially referred to it in his evidence, describing it as "a powder given to him to smell, which made him feel very ill." The dose was the ordinary one of five drops. It was used to aid my diagnosis as mentioned above, and it had only the usual passing effect so familiar to us all. The nitrate is largely used in ophthalmic practice both for diagnostic and prognostic purposes, and also as a curative agent, since the time it was first recommended by Steinheim for various forms of amblyopia. Schweniberg has pointed out how it acts in restoring the diminished fields of vision to their normal limits,‡ and its use is recommended as part of the routine treatment in neurasthenic asthenopia by Meyer§ and De Wecker.‖

Second, as regards the treatment.—Inasmuch as neurasthenic asthenopia is a complex of eye symptoms in connection with a debilitated state of the general nervous system, the eye itself being organically healthy, it is obvious that the constitutional and general treatment is by far the most important, while we give relief at the same time to local conditions. On these lines I endeavoured to carry out my treatment of the case.

The patient was directed not to do much work; to take exercise in the open air, cold baths, &c.; to refrain from using the eyes too much; to wear protective glasses, which were afterwards replaced by spectacles with tinted lenses to correct a small error of refraction. The sleeplessness (which was a very marked symptom) was combated by bromides and hyoscyamus at night for the first few weeks, and these were subsequently replaced by a nightly dose of sulphonal. I need not stop to refer to the doses of these medicines, as they were given in only the ordinary quantity, and their use is recommended by such authorities as Swanzy, De Wecker, Ranney, and others.

The hypodermic injections of strychnine come next. Feeling anxious to give my patient the advantage of treatment in its best form, and knowing that the hypodermic method of administration of strychnine was highly recommended in these cases, I asked the plaintiff to submit himself to a course of injections. To this he readily agreed, and on April 2 I commenced by injecting $\frac{1}{300}$gr. in the temple. The solution used was the liquor strychniæ B. P., and I took the extra precaution of boiling the needle before using, so as to prevent any possibility of sepsis with a local and disfiguring mark. The doses were increased gradually at the rate of about one minim of the liquor each week, the increase extending over a period of thirty-six days, when the maximum dose given was reached. This gradual increase was to guard against any possible idiosyncrasy. The injections were administered uniformly three times a week, from April 2 to June 15, and twice a week from June 18 to July 4, and at no time were they administered on two consecutive days. The maximum dose was gr.$\frac{1}{14 \cdot 4}$, or min.9 of the liquor strychniæ. The plaintiff never at any time during the treatment complained to me of any unpleasant symptoms following the injections, or any symptoms which could possibly be construed as representing the well-known physiological effects of strychnine. This is a strange commentary on the plaintiff's statement that as early in the treatment as after the third injection he believed the strychnine was doing him injury; still, nevertheless, he submitted to the injections for a period of three months subsequently, and the reason he gave at the expiration of this period for declining to have any more strychnine was because the insertion of the needle in his temples gave him so much pain. In the plaintiff's evidence a scene called by my counsel "The Culvert Scene," was given a great deal of prominence to by both the plaintiff and his brother. On April 10, the day on which he received his third injection of strychnine, the dose being gr.$\frac{1}{24}$, he says he suddenly lost the power of his legs when walking home, and that he could not get across a certain culvert without his brother's assistance; he, however, walked two miles afterwards to his home. Strange to say, and this is worthy of special note, although this incident was dwelt upon, and appeared to both plaintiff and his friends of such serious import, not one word was said about it to me, his medical attendant, and the first time I ever heard of its occurrence was from the plaintiff's evidence in the witness box.

In the use of strychnine for this affection I am supported by the highest authorities in all parts of the world, *e.g.*, Swanzy, Dublin; De Wecker and Meyer, Paris; Schweigger and Schmidt-Rimpler, Germany; Fuchs, Vienna; and Noyes, Seguin, and Ayres, America; and by far the greater number of these authorities specially recommend its administration by the hypodermic method. This recommendation is in keeping with what seems to be the concensus of medical opinion at the present time, viz., that strychnine should always, if possible, be given hypodermically when your object is to gain some special and definite effects from its use; and I believe nothing but the difficulty, and in many cases the impracticability, of carrying out the treatment in this way, owing to the constant attendance upon the medical man which it requires, prevents the more general adoption of this method of administration. One or two quotations from the authorities will be sufficient, *e.g.*, Swanzy says: "Strychnine hypodermically is a valuable remedy in this affection."* De Wecker writes: "In the other non-hysterical forms of this disease subcutaneous injections of strychnine are specially to be recommended."† Again, "Injections of strychnine and the constant current have also been used to advantage," Schmidt-Rimpler;‡ and again: "Good results have also been obtained from the subcutaneous injection of strychnine," Meyer.§ I have in my own ophthalmic practice used strychnine very extensively, and I am convinced that you will sometimes get results from its use hypodermically which are not obtainable by its administration through the mouth. Dr. Lundy, of Detroit, contributed a paper to the New York *Medical Record*, in January. 1891, entitled, "Hypodermic Medication in Diseases of the Eye," in which he gives some interesting details and statistics in support of this contention respecting strychnine. This paper led me to test the relative superiority of each method of administration, and so satisfied am I of the correctness of his views that I always now endeavour to get the patient to let me conduct the treatment in this way, or if he cannot remain in town, to allow me to hand him on to his own medical man in the country or elsewhere for hypodermic medication. In this connection let me refer once more to the dosage of strychnine. I have drawn your attention to the doses the plaintiff received, their average quantities, infrequent administration, and gradual increase. Now I feel pretty certain that most of us here who have used strychnine hypodermically have given it in larger, more frequently administered, and more rapidly increased doses than this case of mine records. I, myself, have given much larger doses. I am at present giving gr.$\frac{1}{6}$ every day in three cases of toxic amblyopia, and Dr. Brummitt, of the Burra, has been injecting a patient for me since last October with doses up to gr.$\frac{1}{4}$, and that nearly every day, or five days a week. All these cases are doing well, and nothing but the most satisfactory results have so far followed the use of these large and frequently repeated doses, even though in two cases slight physiological symptoms once or twice showed themselves.

---

* "Archives of Ophthal.," vol. xii, p. 428.

† "Ophthalmic Review," vol. iii, p. 140.

‡ "Centralb. fr. die med. Wissensch. 1886," No. 1, p. 13.

§ "Practical Treatise of Diseases of the Eye," p. 298.

‖ "Ocular Therapeutics," p. 456.

* "Handbook of Diseases of the Eye," 3rd ed., p. 376.

† "Ocular Therapeutics," p. 456.

‡ "Ophthalmology and Ophthalmoscopy," p. 125.

§ "Diseases of the Eye," p. 298.

The question may arise whether or not strychnine is cumulative, and this might form an interesting subject for discussion, as some authorities, *e.g.*, Lauder Brunton, seem to think it may, under certain circumstances, owing to defective elimination, accumulate in the system. The first evidence of this, however, would be the development of the physiological symptoms after the next succeeding injection. But the entire absence of any such symptoms, as far as my knowledge of the case went, the gradual increase of the doses, and the length of time allowed between each, will, I think, be sufficient to protect me from the charge of over-dosage, even should there have been accumulation of the drug going on. Let me point out, before leaving the strychnine question, that this part of the treatment was stopped as soon as the acuity and fields of vision reached the normal standard.

Next, as regards the electricity.—I am accused of injuring the plaintiff by the injudicious and improper use of electricity. I need scarcely dwell long upon this, except to say that here again I am supported by the highest authorities, who specially recommend the constant current to be applied locally in this affection. Swanzy, Noyes, De Wecker, Fuchs, and others, are my authorities. I used the utmost care in the administration of the electricity, applied it myself, and measured the current used with the galvanometer. The strength of current used was three (3) milliampères—a very average quantity—and it was applied for about ten (10) minutes each time. Erb recommends a current of from one to five milliampères for local application to the eye, and De Watteville mentions from five to ten minutes as the usual time to keep such currents applied.

Then as to the general electricity.—This part of the treatment was carried out, under my direction, by Mr. Millikin, now Honorary Galvanist to the Adelaide Hospital, and a gentleman who is known to us all as a capable and experienced electrician, one also who has, I believe, gained the confidence of the medical profession in this city on account of the careful and efficient manner in which he carries out the treatment of cases committed to his charge. I have just said the treatment was carried out under my direction: I gave special instructions to Mr. Millikin as to what kind of current to be used, where and how often it should be applied, &c., and I was prepared to accept all responsibility connected with the recommendation to the plaintiff to undergo the treatment. Mr. Millikin's notes show that the constant current was the kind of electricity used, and that the strength ranged from 10 to 12 milliampères only. The positive pole was applied to the lower cervical region of the spine, and the negative passed up and down from there to the sacrum, and both poles were held stationary at the extreme limits for one (1) minute. The whole application lasted five minutes in all. After this a four (4) milliampère current was applied to the cervical sympathetics, and lastly, the legs were galvanized all the way down. The electrical examination did not contribute anything towards clearing up the diagnosis, for it showed, as is the rule in neurasthenia, absolutely normal relations.

I am dwelling a little on the details of this general electrical treatment because the plaintiff mentioned this as the part of the treatment of his case which could not possibly be upheld as correct, and he told me he absolutely refused to pay Mr. Millikin his fee because he was told in England that electricity was a wrong thing to use under the circumstances. But if my diagnosis of his case be correct, and if the plaintiff was suffering from spinal-neurasthenia when I sent him to Mr. Millikin, I contend that my treatment was a right and proper one to recommend a trial of at any rate, and a continuance of, when I had evidence from the plaintiff's own statements and his improved condition that good and not harm resulted therefrom. The treatment was commenced tentatively, and persevered in because good seemed to follow its adoption. I am aware that electricity does not suit all such cases, but being recommended by all the modern authorities on electro-therapeutics, its use demands a trial in every case if we wish to place all the available remedial treatment within the reach of our neurasthenic patients. I will only quote two or three authorities.

Steavenson says: "In this condition (neurasthenia) the general methods of electrical treatment are of great value."[*]

Erb writes: "In the treatment of neurasthenia, electricity, along with other remedies, is often of very good effect,"[†] and De Watteville, Rosenthal and others write in the same strain.

The pilocarpine incident, which forms the only unfortunate episode in the case, cannot be passed over without explanation.

On a certain day (I believe about the 10th of May) I had two hypodermic solutions on my consulting-room table, and I, by mistake, administered a dose of pilocarpine instead of the strychnine. The dose of the latter I was giving at the time was nine (9) minims of the liquor, and I gave that number of minims of the pilocarpine solution which was equivalent to gr.$\frac{3}{10}$ of nitrate of pilocarpine. The plaintiff had the usual symptoms following a dose of this drug, perhaps slightly in excess of what we usually see, inasmuch as the dose administered was a moderately large one to commence with, but there was nothing whatever in his condition to cause me any alarm or even anxiety. He got round at the usual time, and was about, apparently, as well as ever the next day. He never mentioned the mistake to me afterwards, and, I believe, because neither he nor I attached any importance whatever to its occurrence at the time. I was perfectly candid with him, and told him I had made the mistake, and he was apparently satisfied with my explanation. In his evidence the other day he stated that he had a constant pain in his back ever since this injection, and that he had had, more or less, incontinence of urine also since then, both of which symptoms he attributes to the one dose of pilocarpine. I leave it to you, gentlemen, to say whether this is likely or whether the well-known lumbar pain of spinal neurasthenia and the excitability of the special nerve centres in the spine, also so commonly met with in this disease, do not furnish to your minds a more likely etiological explanation than that given by the plaintiff.

---

[*] "Medical Electricity," p. 305.

[†] "Electro-therapeutics," p. 598.

After the plaintiff had been about six months under treatment and his eye troubles had practically disappeared, but the spinal symptoms, or in other words, the evidences of the spinal form of neurasthenia, had become more prominent, it was then arranged that he should take a trip to England; and before leaving, a consultation took place, on the plaintiff's suggestion, between the late Dr. Davies-Thomas (his family medical attendant) and myself. Dr. Thomas examined the plaintiff most thoroughly after I had explained to him my diagnosis and all the details of my treatment. The examination could not have been more exhaustive or thorough, and failing to find any evidences of organic or structural change, as I myself had already done, he concurred entirely with my opinion of the case, and expressed the same to the plaintiff. Some few days after this consultation the plaintiff sailed for England, and on the eve of his departure wrote me a letter, thanking me for all I had done for him. I think I never received a more grateful letter from a patient. Soon after he arrived in England I had a request made me by his friends to furnish the plaintiff with a copy of my notes of his case and the treatment I had adopted. This I supplied immediately, sent him a copy of the clinical record I produce here this evening, and in sending it wrote recommending the plaintiff to consult Mr. Jonathan Hutchinson and Mr. John Tweedy (University College Hospital), as two of the best men in London for his condition.

It was on this copy of my notes, as the judge said, the action was taken; and the furnishing of it to the plaintiff not only gave him the information he required to proceed against me, but it has afforded evidence to all that I, at any rate, believed, as I still do, that my conduct of the case would bear the investigation and criticism of the ablest men of our profession.

This brings me to the last part of my subject, upon which I shall dwell very briefly. I have endeavoured to prove that the loss of the powers of locomotion, and other symptoms which the plaintiff complained of, could not have been caused by any part of, or the whole combined, treatment to which I submitted him; and now I assert my belief that all his symptoms were the outcome, solely and entirely, of the condition of nervous exhaustion known as neurasthenia.

My case is, to put it simply, as follows:—The plaintiff has a congenital neuropathic diathesis. He reached the period of maturity, and overworked an already-unstable nervous system. By so doing he developed neurasthenic symptoms, which became more pronounced as time went on. The asthenopic symptoms were the most prominent when he consulted me in April. 1889. These, along with the sleeplessness, excitability, eccentricities, &c., would probably limit the neurasthenia up to this period to the cerebral form of the disease. Soon afterwards, and this occurred in all probability during the time he was under my treatment as a mere coincidence, the symptoms referable to spinal exhaustion or the spinal variety of the neurasthenia came on in due course. Then he got superadded to his other symptoms weakness and rapid exhaustion in performing movements, trembling, paræsthesiæ in the extremities, lumbar pain, &c. Finally, the disturbance having extended, more or less, over the whole cerebro-spinal system, universal neurasthenia is established, and melancholia, mental delusions and other disordered psychical phenomena follow and complete the category of symptoms. Here then, we have before us a clinical picture, supplied by the plaintiff's condition from April, 1889, up to the present time, of a well-recognized disease of the nervous system—a disease which, in his case, is reaching its culmination after the lapse of some years, and which has distorted the plaintiff's mind as much as it has enfeebled his body. This condition of mental disorder distortion seems to me to furnish some reason for the persistence the plaintiff has shown in taking this action against me, contrary to the advice of his friends and in the face of difficulties, nearly, if not altogether, insuperable. He could not probably look at all the aspects of the case in their proper light. He may have believed with all sincerity that my treatment has ruined his health, and finding it impossible to rid his mind of this idea, he has been compelled to take steps to recover damages from me for the injury he believes I have inflicted upon him. I am willing in all charity to take this view of his conduct towards me, and will conclude by saying that, much as I feel aggrieved at having to defend this vexatious action, I am nevertheless prepared to offer the plaintiff, whose confidence I know I once enjoyed, my heartfelt sympathy as being the subject of a disease which will probably, sooner or later, wholly unfit him for the active duties of life, and will most likely prove itself to be incurable.

Dr. J. C. Verco read the following notes concerning this case:—The case of Sabine v. Hamilton raises a very important question, viz., whether there is any danger in the continued use of strychnine; whether, if we use it in the treatment of certain morbid conditions which indicate it, we are liable to set up disease in some part of the nervous system. If this be possible it is well to know it, and to know under what circumstances the possibility arises. Then we shall be able to take precautions against it, and limit our employment of the drug within the bounds of safety. If, on the other hand, there is no evidence of the causation of such secondary mischief, we shall have more confidence in the exhibition of this potent and useful therapeutic beyond even the extent to which we have already pushed it. Since Majindie, after his experimental observation of its powerful influence upon the spinal cord, first suggested its use as a nervine stimulant, few drugs have been more frequently or more freely used than strychnine, either by the mouth or hypodermically. Ample opportunity, therefore, has been afforded of watching its effects both for good and for ill. If it has any tendency to produce nerve disease by a long-continued administration, or by exhibition in considerable doses, such disease must be not uncommon. Moreover, it has been employed by medical men possessed of the most patient and acute observation, who could not fail to detect it, and of such transparent honesty that they would not scruple to publish the facts, even though they themselves were responsible. Now, what evidence can we obtain? 1. We learn that by misadventure an enormous dose of strychnine may be taken, and the patient may die almost at once, with or without the well-known strychnine convulsions. 2. That after a large medicinal dose, purposely administered or unintentionally given, or a smaller dose taken by a patient unusually susceptible, there may arise mild symptoms of acute poisoning, such as jerking of the limbs and retraction of the head; but these are entirely transient, and pass away in a few minutes. If these symptoms are intentionally excited, as they were by Trousseau in his treatment of chorea, they return, of course, upon every repetition of the dose. If they are not desired, they are regarded as an indication to diminish the amount of the drug taken; and this is accordingly done, and the symptoms of poisoning do not recur. One property of strychnine deserves notice in this connection, viz., what is called its "cumulative action." It is peculiar in remaining a considerable time in the nervous system and in the viscera. Several days may elapse before it is wholly excreted. "Entering the blood rapidly and disappearing slowly, the alkaloid accumulates in the body if the dose, however small, be very frequently repeated." (Mitchell Bruce, 1888, p. 320). And these may occasion symptoms of poisoning. This cumulative action when the drug is given by the mouth will depend on three circumstances: 1. The size of the dose given; 2. The frequency of its repetition; 3. The rapidity of its excretion. The manifestations of its physiological action, *i.e.*, the symptoms of poisoning, may arise and increase gradually, or be sudden in their onset, and may be due to one or both of two events: (*a*) the accumulation of the drug in a somewhat insoluble form in the intestines, as for instance when exhibited in coated pills, and then, owing to some change in the intestinal contents, the rapid solution of the alkaloid and its rapid absorption into the blood; (*b*) or arrest of excretion. Normally, it is removed in the urine, but it has an effect somewhat similar to digitalis on the renal arteries, contracting them and so diminishing the excretion of urinary water, and so preventing its own egress from the system. The consequence, however, of this "cumulative action," however brought about, is not chronic disease of the nervous system, but acute strychnine poisoning in greater or less degree. And should this occur, it is an indication to reduce the doses, or prolong the intervals between them, or attend to the solubility of the alkaloid and the vehicle in which it is exhibited. *Prima facie*, one might judge strychnine to be quite capable of producing chronic disease of the spinal cord if taken in large medicinal doses for a considerable length of time. Without entering minutely into the physiological action of the drug upon the whole nervous system, it is sufficient to notice the heightened reflex activity of the cord, its diminished resistance to the passage of sensory impressions, the increased diffusibility of impressions, the irritation of the motor cells (Spitzka), and, according to Harley, the dilatation of its vessels and an increased blood supply. We can conceive how persistently-exalted function and long-continued active congestion might easily induce structural changes in the delicate nerve substance of the spinal medulla, which would manifest themselves in deranged function. But *prima facie* reasoning is ever very liable to fallacy, and is only of value as furnishing suggestions for submission to clinical observation and to experiment. And what do we learn from these? Personally I have never seen a case in which I was led to suspect the slightest cord lesion as a consequence of the administration of the alkaloid. I have used the fortieth of a grain daily for many weeks in succession hypodermically. I have gradually increased the dose hypodermically through several weeks until the patient was having the sixteenth of a grain daily. Anstie used it in doses of $\frac{1}{120}$ of a grain for cardialgia; Hunter $\frac{1}{60}$ in paralyses; Barwell up to $\frac{1}{12}$ in various palsies; and Julian Chesolm up to $\frac{1}{5}$ in certain pareses and palsies of retina and muscles of the eyes. The only note of warning given by Ringer in regard to these instances is that it is well to begin with a small dose, as some people have a special susceptibility to the influence of the drug, meaning that otherwise you may excite a transient strychnine poisoning. So also Gowers, while advising the hypodermic use of strychnine as the surest remedy in chronic muscular atrophy, advises $\frac{1}{40}$ of a grain as the maximum dose, lest the nerve elements should be over-stimulated, although in their damaged state they may not manifest its influence. But neither in Brunton's "Pharmacology" or Bartholow's "Materia Medica and Therapeutics," or Ringer's "Therapeutics," or Mitchell Bruce's "Materia Medica," or Hale White's "Hypodermatic Medication," have I been able to find a hint or a suggestion, much less an observation, that strychnine can be so used or abused as to induce chronic, functional, or structural disease of the nervous system; nor is any caution given, or any note of warning sounded in regard to such a possibility. So also, in looking through the text-books and monographs, as far as time and opportunity have permitted, I have failed to find under the etiology of any described disease of any part of the nervous system an implication, an inference, or a conjecture, of its causation by the careless or reckless administration of strychnine even. Consequently we may dismiss from our minds the idea of exciting one disease while we are trying to cure another by the employment of this drug. It is far otherwise with many other drugs. Their deleterious influence on the nervous system has not only been recognized, but the affections induced have been described and named, and can easily be diagnosed and demonstrated. There is saturnism, or plumbism, from chronic lead poisoning; there is mercurialism, as a nervous tremor; there is alcoholism, acute and chronic; there is ergotism; there is argyria from silver poisoning; there is arsenical poisoning with its nervous symptoms; there is zinc poisoning. It is manifest, therefore, that quite a large number of maladies have been detected arising from the ingestion of different drugs. Observers can recognize such complaints when they exist, and can establish their causal relations with various poisons. But in the case of strychnine this has never, to my knowledge, been done. And we must conclude that the reason why it has not been done is because it cannot be done, and the reason why it cannot be done is because there is no chronic disease of any part of the human economy due to the use or abuse of this alkaloid.

DR. R. S. ROGERS said: "In the case of a highly neurotic patient, suffering from hysteria with loss of superficial and deep reflexes, I recently injected, hypodermically, 10 minims of the B. P. liq. strychniæ (*i.e.*, $\frac{1}{10}$gr.) thrice daily for an entire week. The reflexes gradually returned under the action of the drug, but there were no toxic symptoms. On another occasion in the same patient I injected 15 minims of the liq. strych. (*i.e.*, $\frac{3}{20}$gr.) thrice daily for four days in succession, without producing any physiological symptom whatever. Thus on the first occasion the patient had nearly $\frac{1}{3}$gr. of strychnine per diem, and on the second occasion nearly $\frac{1}{2}$gr. per diem, without any ill effects."

DR. C. G. MACLEOD said: "I have read the detailed notes taken by Dr. T. K. Hamilton in reference to the case of Mr. Clement E. E. Sabine. They correspond in nearly every particular with the classical descriptions of neurasthenic asthenopia as first given by Von Graefe, and later on by Wilbrand and Priestly Smith, and form an almost typical clinical picture of the condition. Taking into account the whole group of general and special symptoms, notably the fluctuation in the visual acuteness and the contraction of the visual fields, with the absence of organic disease of the eye, it would be difficult, if not impossible, to form any other diagnosis than that arrived at by Dr. Hamilton. The treatment adopted in the case, viz., the hypodermic injection of strychnine and the use of the constant electric current, follows closely on the lines recommended by De Wecker, Swanzy, Meyer, Schmidt-Rimpler, Noyes, and other well recognized authorities. In every instance the application of these remedies was well within the limits of ordinary use, and their employment is amply justified by a comparison of the state of the patient's vision and perimetric charts taken on April 2, 1889, with the observations taken three months later."

DR. STIRLING said : Against any one of us it may happen that in the discharge of our duties, either in hospital or in private practice, a charge of carelessness or incompetence, or even of a worse offence, may be brought by an unscrupulous or discontented patient. To the credit of human nature such charges are seldom brought ; to the credit of the medical profession they are still more seldom successful. And I think it would be difficult to find an instance in which a charge has been raised against a medical man on less reasonable grounds than in the case of the proceedings which have just terminated so triumphantly for our medical brother. The fact that medical men are usually found ready to stand by one another in times of difficulty has often been alluded to ; and I am quite willing to confess that the natural desire to shelter or protect a colleague in difficulties, for which he is himself to blame, may have been sometimes carried to excess at the expense of justice and truth. But when an unjustifiable and unreasonable charge is levelled at the head of a brother practitioner, that impulse of the profession which leads its members spontaneously to stand by their colleague can be none other than a sentiment deserving of praise, and a professional solidarity which rests on a basis such as this is likely to be permanent and beneficial. I do not think there would be found—and indeed the trial was a proof of it—a single medical man in South Australia who, on following the late proceedings and the medical details of the case, could honestly allege that the symptoms complained of had their origin, or were materially influenced, in their course by the methods of treatment adopted. They were indeed those which are recommended by the best authorities, and which would have been adopted by anyone who knew anything about his business. Had it not been for the erroneous, but honestly-admitted and sincerely-regretted, administration of a single moderate dose of pilocarpine, which it is impossible to state had any other than temporary inconvenience, the conduct of the case would have been absolutely flawless so far as diagnosis and recognized treatment were concerned. The facts then being as they are, it is surely incumbent upon us by our resolutions this evening to do what we can to show our undiminished confidence in Dr. Hamilton, and to mitigate, so far as sympathy can mitigate, the annoyance and distress of mind to which he has so obviously been subjected. Gentlemen, any one of us may find ourselves in Dr. Hamilton's place, and be the subject of ungrounded charges and accusations ; and even though we should emerge triumphantly from the legal proceedings, as Dr. Hamilton has done, acute feelings of exasperation and distress still remain, which are far from being satisfied by the legal triumph. In that position Dr. Hamilton finds himself now, and I therefore ask you by an absolutely unanimous vote to show that there is but one feeling in the profession concernining the trouble to which he has been subjected.

DR. HAYWARD felt that after the eloquent remarks of Dr. Stirling little could be added, for they expressed the feelings, he was sure, of every member present. Dr. Hamilton was entitled to their heartfelt sympathy in the trouble he had lately experienced, for, notwithstanding the consciousness that he had done nothing that would not bear the strictest investigation, and the knowledge that there was absolutely no case against him, yet it was impossible but that the case must have caused him infinite pain, not to mention the pecuniary loss involved through the proceedings. He congratulated Dr. Hamilton on being able to present so complete a vindication of his treatment as that presented to them to-night, a vindication so corroborated by the excellent papers of Drs. Verco and Macleod. The case of Sabine v. Hamilton forcibly brought home the fact that any one of them might be placed in a similar position to that lately occupied by their friend. He trusted that should such a misfortune ever occur they would be able to vindicate themselves as effectively as Dr. Hamilton had succeeded in doing in the case under notice. Pity might be extended to the unfortunate plaintiff, whose state of health doubtless accounted for the delusions from which he evidently suffered, but what must be their feelings towards this gentleman's legal advisers, men to whom it was well known the word "ignorant" in a general sense could not apply ? who, apparently with a very imperfect acquaintance with the facts of the case, and without a tittle of medical evidence, took this case into court, well knowing that if it went against them it must involve heavy pecuniary sacrifice to the plaintiff. Surely the medical profession was entitled to more consideration from the members of a sister profession. He had great pleasure in supporting the resolution.

The **PRESIDENT** concurred in the opinions expressed by Dr. Verco, Dr. Stirling, and the other speakers, and he congratulated Dr. Hamilton in having so completely vindicated his position in regard to the management of the case. He explained that the Council had thought it wise to consider this question at a special meeting, so as not to interfere with the ordinary work of the Branch, and he thought the members present were also to be congratulated in having enjoyed the privilege of listening to the exceedingly able papers which had been read by Dr. Hamilton and Dr. Verco.

DR. STIRLING moved, **DR. J. C. VERCO** seconded, and **DRS. HAYWARD** and **CLINDENING** supported the following resolutions, which were unanimously carried.

"That this meeting of the South Australian Branch of the British Medical Association, having heard Dr. T. K. Hamilton's statement of the details of the case of the plaintiff in the recent action 'Sabine v. Hamilton,' expresses its entire concurrence with the diagnosis and its approval of the line of treatment adopted, it being that advocated by the highest modern authorities."

"That this meeting further considers that the charges upon which the action was based were groundless, and desires to express its sympathy with Dr. T. K. Hamilton in the vexatious and unnecessary litigation to which he has been subjected."

After a few remarks from the President, Dr. T. K. Hamilton thanked the meeting for the cordial manner in which they had received the resolutions.

On the motion of Dr. Clindening, seconded by Dr. Corbin, it was resolved to send a copy of the resolutions to the daily papers.

BALLARAT (VIC.) BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

A General meeting of the members was held at Ballarat on the 25th January, 1893, to receive the report from the General Secretary, London. Present: Drs. Whitcombe, Mitchell, Jordan, Adam, W. Morrison, Hardy, Gutheil, Mullally, R. Scott, Pinnock and G. E. Morrison.

On the motion of Dr. Hardy, seconded by Dr. Scott, Mr. Whitcombe took the chair.

The Chairman then explained that the object of the meeting was to adopt the proposed by-laws and elect office-bearers for the ensuing year, as permission had now been granted by the Council in London to form a local Branch.

The proposed by-laws were then read and carried, with a few alterations.

The election of office-bearers for the ensuing year was then proceeded with, and the following members were elected:—President, W. P. Whitcombe, M.R.C.S.E.; Vice-president, T. Le G. Holthouse, M.R.C.S.E.; Treasurer, R. D. Pinnock, M.D., Ch.M.; Secretary, R. Scott, M.B., Ch.M.; Council: W. Morrison, M.A., M.D., Ch.M.; E. G. Ochiltree, M.D., Ch.M., M.R.C.S.E.; H. R. Salmon, M.B., Ch.B.; J. T. Mitchell, M.D., Ch.M.

Dr. Scott moved, and Dr. Morrison seconded, "that Messrs. Corbett and Smyth be appointed Hon. Auditors." Carried.

Dr. Morrison moved, and Dr. Adam seconded, "that Drs. Mullally and Jordan be appointed Trustees." Carried.

A vote of thanks to the chair closed the meeting.

Monthly meeting, held at Ballarat on the 23rd February, 1893.

Present: The President (Mr. Whitcombe), in the chair; Vice-president, Dr. Holthouse; Drs. Pinnock, Mitchell, W. Morrison, Salmon, Mullally, G. E. Morrison, and the Hon. Secretary (Dr. Scott).

The President congratulated the members on the formation of the Branch, and hoped that they would help both by individual and concentrated effort to make the Branch a "live one." It was not so much abstruse papers that were wanted as papers on cases that were occurring every day in practice.

The President then read his paper on "A Series of Obstetric Cases," which proved very interesting, and was followed by a discussion in which most of the members present took part.

Monthly meeting, held at Ballarat on the 30th March, 1893.

Present: The President (Mr. Whitcombe), Drs. Pinnock, Mitchell, Salmon, Ochiltree, G. E. Morrison, Rowe, and the Hon. Secretary. Mr. J. D. Scott (an undergraduate) as visitor.

The minutes of last meeting were read and adopted. After routine business was disposed of

Dr. Robert Scott read his paper on "A Case of Pulmonary Hydatid," which will appear in our next issue.

The case was interesting on account of the uncontrollable bleeding at the operation for the radical cure which proved to be due to one of the pulmonary arteries opening directly into the cyst. The specimen was shown at the meeting.

After a discussion on the paper the meeting adjourned.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

The eleventh annual meeting of the Branch was held in the Royal Society's Room on Friday, 3rd March, 1893. Present: The Hon. Dr. Creed, M.L.C., President, in the chair; Drs. Crago, Quaife, Coutie, Sydney Jones, Huxtable, A. Parker, McDonagh, Pilkington, McKay, Fiaschi, Faithfull, Hankins, Abbott, Maher, Worrall, Clay, Rennie, Jenkins, Norrie, MacSwinney, Money, T. M. Kendall, Clubbe, Garrett, Wm. Chisholm, Power, Bennett, A. Jarvie Hood, Wood, Roth, McMurray, Thring, Langhorne, Bucknell, Scott, McLeod and Professor Stuart; visitors, Drs. Adams and Fullerton.

The minutes of the previous annual meeting were read and confirmed.

The President stated that he was very far from being well, and really not able to deliver his address properly, but if the members desired it he would do his best.

Professor Stuart proposed: "That the President be asked to postpone his address until the next meeting." Carried.

Dr. Crago read the financial statement, which showed a credit balance of £283 12s. 1d., and said it was his privilege for the fourth time to make the financial statement. During the four years of his treasurership there had been a steady increase in both the membership and the receipts of the Branch. The credit balance had more than doubled, having risen from £124 14s. 9d. in January, 1889, to £283 12s. 1d. in January, 1893. The number of subscriptions paid during the four years had been 121, 131, 145 and 162 respectively. The actual amounts received for subscriptions during the same periods had been £248, £274, £303 and £337. These figures show a very satisfactory progress in the affairs of the Branch.

Dr. Ellis, in seconding the adoption of the statement, said he thought the surplus should be placed aside for the purpose of starting a medical library for the use of the members. Dr. Huxtable had suggested that perhaps the authorities of the Free Public Library would most likely set apart a room at the Library for the use of the Branch, and a long-felt want, such as a good reference library, would be satisfied.

Professor Stuart said that he thought the library at the Sydney University was quite good enough for all purposes; indeed, anyone desiring to hunt up any reference could do so with every facility at the University.

Dr. McKay said he did not agree with Professor Stuart in this matter, as he found the University library very deficient in all books bearing upon gynæcology.

The President said the next business was the election of officers for the ensuing year, and he had much pleasure in announcing that Dr. Ralph Worrall had been elected unopposed as President, and Dr. W. H. Crago as Vice-President.

The following gentlemen were elected as Councillors: Drs. E. J. Jenkins, Fiaschi, Sydney Jones, Knaggs, Wm. Chisholm, Clubbe, Brady, Huxtable.

The Council met immediately after the Annual Meeting and elected Dr. E. J. Jenkins Hon. Secretary and Dr. Clubbe Hon. Treasurer.

The following new members were elected: Dr. Frances Dick and Dr. Angel Money.

A letter from Dr. Sydney Jones was read relative to setting apart a sum of money to enable Dr. Martin to make experiments in snakebite poisoning.

Dr. Huxtable moved: "That a sum of £50 be placed at the disposal of the Council of the Association to be advanced to Dr. Martin, as may be required, for the purpose of pursuing the investigation of the effects of snake poisoning and its antidotes."

DR. QUAIFE seconded the resolution.

DR. ELLIS proposed as an amendment: "That before this new departure is taken a vote of all the members be taken." Seconded by Dr. McDonagh.

The resolution was carried.

A letter from Sir Joseph Lister relative to the establishment of an Institute of Preventive Medicine.

A letter from the authorities relative to the erection of a monument to Semmelweis was read.

DR. FIASCHI proposed: "That a sub-committee, composed of Drs. Chambers, Worrall, and Foreman, be appointed to deal with the question."

Seconded by Dr. Crago and carried.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

White, James Purves, M.B. Melb. 1889,
Fyffe, Edward Henry, M.B. Glasg. 1888; C.M. Glasg. 1888.

For Additional Registration:—

Marano, Vincent, Ch.M. Univ. Naples 1885.

NEW ZEALAND.

Cox, Norman Kershaw, M.D. Univ. of Mich. U.S.A.
Marsack, Arthur Ernest, L.R.C.P. *et* R.C.S. Edin. 1883.
Myles, Henry, L.R.C.S. Irel., L.A.H. Dubl.
Paget, Tom Lakin, M.R.C.S.E., L.R.C.P. Lond.

QUEENSLAND.

Lawes, Charles Herbert Essery, M.B. *et* Ch.M. Syd. 1892.
Park, Joseph, M.B. *et* Ch.M. Syd. 1892.

SOUTH AUSTRALIA.

Minchin, Edward James, L.R.C.S. Irel., L.K.Q.C.P. Irel. 1884.
Steven, Edward Millar, M.B. *et* Ch.M. Edin. 1891.
Kudrna, Stanislav, M.D. Prague 1878.

TASMANIA.

Browne, David Graham, M.D. *et* Ch.M. 1871, L. Mid. 1874 Qu. Univ. Irel.

VICTORIA.

Ramsey, Robert, M.B. *et* Ch. M. Glasg. 1892.
Cook, James, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892.
Murdoch, David, M.B. *et* Ch. B. Melb. 1892.

WESTERN AUSTRALIA.

Williams, David Ernest, L. *et* L. Mid. R.C.P. *et* R.C.S. Irel. 1892.
Wheeler, Louis, M.B., B.S., B.O. Roy. Univ. Irel. 1891.

FIRST-CLASS PRACTICES in good country towns wanted for cash buyers. L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of New South Wales and Queensland on application to L. Bruck, Medical Agent, Sydney.

I DESIRE to recommend my dispenser, who has been with me over six years, to any physician requiring a thoroughly reliable and accurate compounder. Aged 23. Single. "Medicus," *Australasian Medical Gazette* Office.

NOTICE.

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, APRIL 15, 1893.

EDITORIAL.

SABINE v. HAMILTON.

THIS case, which will be found reported in detail on another page, affects the profession at large indirectly almost as much as it does personally Dr. T. K. Hamilton, of Adelaide; and it certainly seems to us both monstrous and iniquitous that on such slender grounds it should be possible to bring a vexatious and vindictive action, attacking the professional skill and reputation of an eminent member of the medical profession.

Dr. Hamilton's acquaintance we recently had the pleasure of making in this city, as he was a regular attendant in the Section for Ophthalmology at the Intercolonial Medical Congress. The plaintiff appears to be a young legal practitioner of neurotic temperament. In 1889 he consulted Dr. Hamilton, and was treated for neurasthenic asthenopia by the hypodermic administration of strychnine and the application of the constant current, and great capital was naturally made of an unfortunate though trivial mistake—the accidental injection on one occasion of some pilocarpine. The plaintiff improved so much that he wrote a letter of gratitude to Dr. Hamilton, although, according to his statement in Court, he actually at the time suspected that the treatment had caused an impairment of locomotion, which was probably due, in reality, to spinal neurasthenia. Nearly four years after he brings this action, claiming £2,000 damages, and appears to blame the strychnine, the pilocarpine, the electricity, and a sleeping draught indiscriminately as the cause of his present condition. He was not corroborated by any medical witness, and was non-suited with costs, Mr. Justice Bundey describing the action as an ill-advised one.

However much we may sympathize with the plaintiff in his pitiable condition, we must not forget the mental worry inseparable from having such an action impending. Fortunately Dr. T. K. Hamilton's reputation is so well established throughout Australia that his treatment does not require justification at our hands; but that might not be the case with another perhaps less known to the profession, and it is obvious that anyone might easily be the victim of such an action, which has somewhat the appearance of an attempt to levy blackmail. Well may a medical practitioner exclaim in future, when, as in this case, he receives a letter of gratitude, enclosing a cheque and a photograph,

Timeo Danaos, et dona ferentes.

American Electro-Therapeutic Association.—We have been requested to state that the third annual meeting of this Association will be held in Chicago on September 12, 13 and 14, 1893. A cordial invitation is extended to all members of the profession interested in electro-therapeutics. Arrangements for special rates on railways and at hotels are in progress. The Committee of Arrangements will be obliged if those who intend being present at the meeting will send their names, the class and amount of accommodation required, titles of papers to be presented, applications for membership, &c., at as early a date as possible. Accommodation should be secured early on account of the crowded condition of the hotels, because of the World's Fair. All communications should be addressed to the Secretary, Dr. S. C. Stanton, 3537 Indiana Avenue, Chicago. The Committee will be glad to furnish any information in regard to the meeting upon application.

The International Congress of Charities, Correction and Philanthropy will be held in Chicago during the week commencing June 12, 1893. The Committee of Organization is very desirous of securing a large attendance from abroad, in order that the Congress may have the greatest possible beneficent effect upon the philanthropic and phrenological work of the world; they have sent us the rules, list of officers, and programme of sessions and subjects, and particularly desire us to draw the attention of our readers to the work of Section 3, which covers the hospital care of the sick, the training of nurses, dispensary work, and first aid to the injured. All communications should be addressed to the Secretary, Mr. N. S. Rosenau, World's Congress Headquarters, Chicago, Ill., U. S. America.

Kissing the Book.—With reference to the letter under this heading in our last issue, Dr. W. H. Goode, of Macquarie-street, Sydney, informs us that in a recent Supreme Court action, before His Honor Sir George Long Innes, he, as a witness, was permitted to take the oath according to the Scotch law, *i.e.*, with uplifted hand, instead of kissing the book, to which he objected.

LETTERS TO THE EDITOR.

INTUBATION IN GERMANY.

(*To the Editor of The Australasian Medical Gazette.*)

Dear Sir,—In the recent discussion at the Intercolonial Medical Congress on the treatment of diphtheritic laryngeal stenosis, it was evident that Australian experience of the value of O'Dwyer's intubation instruments was as yet too small to allow of any positive conclusion. It may therefore interest your readers if I place before them the results obtained recently by German observers, who appear to have been giving an extensive trial to this new method of treatment. Their reports are briefly epitomized in a late number of the *Archiv für Kinderheilkunde* (*Band XV., I. u. II. Heft*).

Schwalbe (Berlin) has treated 10 cases of diphtheria with intubation with only a single recovery. In the successful case the dyspnœa before operation was not sufficiently severe to have justified tracheotomy. He has altogether abandoned intubation for diphtheritic croup.

Baginsky (Berlin) has treated five cases by intubation alone, and of these four died. In eight cases intubation was followed by tracheotomy with one recovery. He is inclined to attribute the unfavourable results to the severe nature and long duration of the disease in these cases.

Ganghofer (Prague) has had a more extensive experience. In two of his cases the introduction of the tube caused severe dyspnœa by the pushing down of membrane before it, so that immediate tracheotomy was necessary, for which contingency the operator should be prepared. Of 87 cases of stenosis from diphtheria, 45 were subjected to tracheotomy with four recoveries, 9 per cent., and 42 to intubation with eight recoveries, 19 per cent. (One may safely conclude that these results were obtained during an epidemic of exceptional malignity.—A. J. T.) He considers that the new method of treatment has established its position by the side tracheotomy.

Muralt (Zurich) has had 56 cases of intubation for diphtheria, with 21 recoveries, 37·5 per cent. Among these are included 18 cases which were subjected to a secondary tracheotomy with one recovery. Among 318 cases of primary tracheotomy he has had 35½ per cent. of recoveries.

Ranke (Munich) reports 326 cases of primary diphtheria intubated with 139, 42·6 per cent., of recoveries. Seventy-five of these cases were subsequently subjected to tracheotomy with five successes. In secondary diphtheria he has intubated 17 times with five recoveries.

With these figures he contrasts 221 cases of tracheotomy for primary diphtheria with 72, 32·6 per cent., of recoveries; and in secondary diphtheria 16 with six recoveries. He regards the future of the new method hopefully.

Bókai (Budapest) has intubated 109 cases, successfully in 37, 34 per cent. He regards this as a very favourable result, and considers that intubation will be substituted for tracheotomy in the great majority of cases in hospital practice.

Schlatter (Zurich) reports 510 cases of diphtheria of the larynx treated in the Zurich hospital since 1881. Tracheotomy was performed 408 times with 69 recoveries, 16·9 per cent. During the previous year intubation was performed in 34 cases with 15 recoveries and 19 deaths. In 10 of these intubation was followed by tracheotomy with one recovery. His experience leads him to conclude that tracheotomy will always remain the chief method of treatment in diphtheritic stenosis of the larynx, but that in carefully selected cases the operation may be avoided by performing intubation.

These results are somewhat discordant, but it will be observed that those who have had the largest experience of intubation are the most favourably impressed with it. One important detail should be mentioned. Bókai and Ganghofer have departed from the original method in so far that they are accustomed to refrain from removing the thread after the tube has been introduced.

I am, Sir, yours, &c.,

A. JEFFERIS TURNER, M.D. Lond.

Brisbane,
February, 1892.

MEDICAL ETHICS.

(To the Editor of The A. M. Gazette).

Sir,—I would deem your consideration of the following case a favour.

On February 21 last I was consulted by one Joseph Frost, *æt.* 45 years. He told me he had suffered during the last 20 years from bleeding piles, for which he had consulted different doctors, with little, if any, benefit. On examination I found the bowel from two to three inches within the sphincter one mass of hæmorrhoids, one being quite the size of a pigeon's egg. From this one in particular the blood spurted strongly upon the slightest irritation. I suggested as a radical cure transfixion and ligature. To this he readily assented. In the meanwhile I ordered rest and nourishment, and prescribed an iron tonic.

On the following Friday I selected the three largest, and operated upon them by passing the double ligature through the base and tying. In doing this, every antiseptic precaution was attended to, and during the following days an astringent antiseptic lotion was thrice daily injected into the bowel. He made good progress until Tuesday, March 1. On this day he complained of severe pains in the region of the heart and left side. He said he often had this pain previously. I attributed it to an attack of pleurodynia. The heart sounds were normal, although the organ beat quick and weak; the stomach was distended with flatulence. I ordered hot fomentations and prescribed bismuth and opium. That night and the following day he appeared well and cheerful. On the Thursday when I saw him he was again complaining of the pain, which had returned in the night; his pulse was thready and rapid, and on account of the severe pleuritic-like pain in the side he was unable to take a full inspiration. His temperature all along never rose. He was vomiting a bilious-looking fluid, and thin motions were freely passing from the previous day, when a large dose of castor oil had been taken, constipation having existed up to then. I considered he was then dying from asthenia, the result of a deficiency of blood in the body. In fact during the past twelve months he had been slowly bleeding to death. He was anæmic to an extraordinary degree. He died that night about 11 o'clock, but a few hours before his death he was seen by Dr. Du Moulin, who pronounced the case one of pyæmia, the result of the absorption of a septic embolus from my operation; he also informed the Coroner on Saturday that he would not give a certificate of death, and that he considered an inquest should be held.

Now, sir, the points I wish your opinion on are: 1st. Was not I, and not the doctor who only saw the case a few hours before death, the proper person to give the certificate? 2nd. Was not Dr. Du Moulin's diagnosis only a hastily formed theory, possible, but most improbable? 3rd. If the man had pyæmia would not his temperature be high, and not as Dr. Du Moulin said at the inquest, normal. 4th. Was not Dr. Du Moulin's whole attitude most unprofessional?

I am, Sir, yours, &c.,

LOUIS FITZ PATRICK,

Medical Officer Dubbo Hospital.

Dubbo, N.S.W.,
March 29, 1893.

I append the evidence of the medical experts and the verdict of the jury.

Dr. Du Moulin deposed: "I am a legally qualified medical man, residing in Dubbo. I have seen the dead body of Joseph Frost. I attended him professionally. I was first called in at 4 o'clock on Thursday last. I went to Mrs. Jacobs', and there saw deceased in a bed in Mrs. Jacobs' house. He complained of great pain in the region of the heart and stomach. He told me that he had undergone an operation for piles on the previous Friday. He was suffering from blood poisoning. He had frequent evacuations of the bowels, most of which passed in the bed. The breath smelt the same as in blood poisoning, and he had a feeble pulse. His heart was weak, but there was nothing to indicate he would die so soon. At 11 p.m. I was again sent for. I went immediately, and I found the patient unconscious. The pupils of his eyes were widely dilated, and he struggled terribly to get his breath; he made three gasps and died. The cause of death, in my opinion, was due to blood-clot, causing pulmonary apoplexy. He appeared to have every attention at the house. Deceased's temperature was *normal* when I first visited him. His colour was *pale*. I had no reason to suppose there was any foul play. I had no reason to suppose that he died from other than natural causes."

Dr. Louis Fitzpatrick deposed: "I am a legally qualified medical practitioner, residing in Dubbo. I know the deceased, Joseph Frost. I attended him professionally first on Tuesday, the 21st February last. I found him on that date intensely weak and in a low condition. The result, I ascertained to be from frequent losses of blood. On examination I found the blood escaping from piles, from which he had been suffering for years. He *desired* to be operated upon, as all previous treatment had failed to relieve him. I prescribed for him, and ordered perfect rest and nourishment, and said I would operate on him when he got a little stronger. I attended him till the following Friday. He then said he was strong enough for the operation, and asked me to do it as soon as I could. He was quite fit, and I operated on him. It was a mild operation, and he prospered well and seemed to improve for some days afterwards. On the Monday or Tuesday before his death he complained of severe pains about the region of his heart. I prescribed for this, and the next day he was better. On Thursday when I visited him he complained of pains in an intensified form. He said he had the pains during his life. I saw him again at 3.30 on the same day. I advised him to see another doctor, as he appeared to be sinking. I consider his death due to poorness of quality and quantity of blood. I consider the diarrhœa was caused through the quantity of fluid he had taken; it only commenced that day. I have no reason to suppose that he died from other than natural causes."

The jury returned a verdict that the deceased had died from natural causes, adding a rider to the effect that an inquest was, under the circumstances, quite unnecessary. The Coroner said he entirely agreed that an inquest was unnecessary. He certainly would not have held the inquest had he not understood that the doctor refused a certificate.

[IN this case it is much to be regretted that Dr. Du Moulin consented to see a patient who had been operated on by a brother practitioner, except in consultation with him. It is impossible for a medical man to acquaint himself with all the particulars relating to the case of a moribund sufferer, except by means of information afforded by the gentleman under whose care the subject had previously been. We are not prepared on the data afforded by our correspondent to categorically reply to the very pointed questions which he puts, but in addition to our above expressed opinion as to the action of Dr. Du Moulin, we may say that we think the suggestion of Dr. Fitzpatrick as to the cause of death is reasonable, and that his certificate to that effect might rightly have been accepted.—ED. *A.M.G.*]

DR. MILFORD AND "BRUCK'S MEDICAL DIRECTORY."

◆

(To the Editor Australasian Medical Gazette.)

SIR,—As you are doubtlessly aware, the proprietor of the *Australasian Medical Gazette* has lately published a new edition of the "Australasian Medical Directory," in which he purports to give the fullest information of the state of the medical profession in Australia and New Zealand. He has, however, with regard to the sequelæ following my name, made several omissions which he has promised to rectify through the pages of the *Australasian Medical Gazette*. I therefore furnish you with the same notice and with additions, and will be glad if you will insert it as written. Mr. Bruck has already promised to do so.

I should not have troubled you in this matter, but have been induced to do so by some invidious remarks which have come under my notice in consequence of the omissions. To those who do not know me this omission might seriously injure me.

Your obedient servant,

F. MILFORD.

3 Clarendon-terrace,
Sydney, Feb. 27, 1893.

MILFORD, FREDERICK, 3 Clarendon-terrace, Sydney.—St. Bartholomew's Medical School, London; M.D. Heidelberg, 1856; M.D. Sydney, *ad eundum gradum*, 1882; M.R.C.S. Eng., and L.M., 1856; L.R.C.P. Lond., 1868; Honorary Surgeon Brisbane Hospital, Queensland, from 1856 to 1859; Honorary Surgeon St. Vincent's Hospital, Sydney, from 1859 to 1886; Honorary Surgeon Prince Alfred Hospital, 1888-9; Lecturer in Surgery University of Sydney, from 1881 to 1889; Examiner in Medicine, University of Sydney, since 1891; Surgeon Volunteer Force, N.S.W., since 1861; President Australian Medical Association, 1869; Honorary Secretary N.S.W. Branch British Medical Association, 1882-3; elected President N.S.W. Branch British Medical Association, 1884; Editor N.S.W. *Medical Gazette* from 1869 to 1875; Editor "Transactions N.S.W. Branch B. M. A., 1882; Editor *Australasian Medical Gazette*, 1882; Treasurer Benevolent Fund, Australian Medical Association, from 1869 to 1893; Member N.S.W. Medical Board from 1875 to 1893.

[IT is distinctly stated in the preface to the new edition of the *Australasian Medical Directory and Handbook* that "any discrepancy which medical men may discover in their qualifications or appointments, is due to their failure to return to the publisher the form which was sent to every medical practitioner in Australasia at the beginning of the year," and as we learn on enquiry that our correspondent did not return this form filled up, or comply with the conditions therein contained, he alone appears to be responsible for the omission he complains of.—ED. *A.M.G.*]

MR. MARTIN DOYLE AND MEDICAL ADVERTISING.

◆

(To the Editor of The A.M. Gazette.)

DEAR SIR,—In *The Lancet* of November 28, 1891, p. 1255, you will see under "Australia, from our own Correspondent—Medical Advertising," an attack on the profession in Australia. The correspondent was then Mr. H. M. Doyle, L.R.C.P., M.R.C.S.E. I enclose you, for your perusal, copies of advertisements inserted by this medical man *daily* in the *Newcastle Morning Herald*, and *weekly* in *The Wallsend and Plattsburg Sun*.

Yours faithfully,
JOHN B. NASH.

Wallsend, N.S.W., March 7, 1893.

The following is an exact copy of Mr. Doyle's advertisement as it appears in the *Newcastle Morning Herald*:—

Dr. H. MARTIN DOYLE,
PHYSICIAN AND SURGEON,
Late Medical Superintendent of the Newcastle Hospital,
MAY BE CONSULTED
AT
No. 4 Bolton-street,
Near the Newcastle Railway Station.

OFFICE HOURS: Before 12, from 3 to 5 p.m., and after 7 p.m.

Diseases of the Eye, Ear, Throat, and Chest, special.

STRYCHNINE IN SNAKEBITE.

◆

THE Constable in charge of the Police Station at Grenfell (N.S.W.) reports that on the 7th December, 1892, a young man, named William Wilson, was working about three miles from Grenfell, cutting firewood, when he was bitten on the little finger of the right hand by a snake. Wilson could not tell what colour the snake was. He cut the piece out immediately after being bitten, and sucked the blood from the wound. He tied a ligature above the bitten part and then rode into Grenfell to Dr. Rygate. Dr. Rygate scarified the bitten part and gave the patient 30 drops of liquid strychnine (B.P.) by the mouth, and one-fifth of a grain by hypodermic injection. The patient was all right shortly after being treated by Dr. Rygate.

The officer in charge of the Police Station at Jerry's Plains (N.S.W.), reports that on the evening of the 12th December, 1892, a young man named Ernest Parker, of Jerry's Plains, was bitten on the finger by a black snake. Strychnine was injected into the finger and arm with the result that the patient is now considered out of danger.

DR. R. MEAD, of Quirindi (N.S.W.), had another case of snakebite last month. A boy got bitten by a snake on two toes, one fang in each. The schoolmaster put on a ligature, excised the bite, and sucked the wound; resulting symptoms slight, which disappeared on hypodermic injection of 5 minims liq. strychniæ (B.P.).

REVIEWS.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By William Osler, M.D., F.R.C.P., Professor of Medicine in the John Hopkins University, Baltimore. Edinburgh and London: Young T. Pentland, 1892.

Nowadays, in order to merit the serious attention of the student, a work on the practice of medicine must be of a decidedly superior order. We say of this work that it is of the highest class—*en rapport* with the very latest and most advanced scientific theories and practice, and so happily condensed as to be singularly readable. It is pre-eminently, in our opinion, the book for the fifth year medical student or the busy practitioner. It occupies in English medical literature the golden mean between Angel Money's scientific condensation and Fagge and Pye-Smith's classical treatise. As Fagge's book is a reflex of the great school of Guy's Hospital, so is Osler's the reflex of the General Hospital, Montreal. We learn what a magnificent field the colonial hospital offered to a thoughtful, earnest, deeply-scientific worker like Osler. He has stamped his individuality on the work, and has thereby taken a place among the *dei majores* of the noble galaxy of writers on the principles and practice of medicine.

The chapter on variola is an ably condensed monograph on the subject. The author has had a large colonial experience. It is highly interesting and instructive to be told, keeping in remembrance the controversies, heartburnings and mistakes that have occurred over and over again in the great Australian cities, notably in Melbourne and Sydney, "that chickenpox and smallpox may be confounded; indeed sometimes it is not easy to distinguish between them." It is stated that the Chicago case, which was the starting point in Montreal of the epidemic of 1885, was regarded as varicella, and not isolated. It is awful to think of the results of that mistake, as 3,164 persons died of smallpox within nine months! There can be no doubt that the law in New South Wales enforcing the notification of suspicious eruptive cases, though severe in the penalty attached, has been the means of preserving the unprotected population from an awful scourge.

The article on diphtheria is especially able. Dr. Osler lays great stress on the detection of the Klebs-Lœffler bacillus as clinching the diagnosis. He thinks it rational to believe that there is a non-specific membranous laryngitis. This view accords with our clinical experience, but it is a matter for bacteriology to clear up. Dr. Osler says the so-called diphtheria of fowls is not associated with the same germ as human diphtheria. There is irrefragable evidence that throat disease in fowls causes diphtheria in man. Dr. Davidson's careful investigation of the epidemic at Buenos Ayres in 1889 conclusively proved fatal infection from hens kept in the "patios" of the houses there.

The chapter on chronic tonsillitis is excellent. In a remarkably clear and concise manner he thoroughly ventilates a subject, the importance of which is not yet fully grasped by the general practitioner.

The author is favourably disposed to free venesection in sthenic cases of pneumonia. He says the reproach of Van Helmont "that a bloody Moloch presides in the chairs of medicine," cannot be brought against the present generation of physicians. We have certainly bled too little during the last decades.

We are pleased to find a testimony to the value of morphia in uræmic states. Dr. Osler says that since its recommendation some years ago by Stephen Mackenzie he has used it extensively, and has never seen any ill effects, but great value, from its use.

Justice has been done to the diseases of the nervous system. Take, by way of example, the chapter on locomotor ataxia. Within a comparatively small space every point of importance has been noted. The author's wide practical experience and evident acquaintance with the work of continental specialists, more especially the French, mark the chapters on the nervous system as no mere *rechauffé* from the textbooks.

The illustrations, very few in number, in the nervous section, are poor. The book deserved better plates. Those in Ranney's (an American work) for example, are immensely superior.

We lay down this book with a sense of unqualified satisfaction. We feel convinced that it only requires to be read to be thoroughly prized as one of the very best and ablest expositions of the practice of medicine issued at the present day.

It is a worthy contribution to medical literature at the close of the nineteenth century.

CHEYNE-STOKES RESPIRATION. By Geo. A. Gibson, M.D., D. Sci., F.R.C.P., F.R.C.S.E. Edinburgh: Oliver and Boyd, 1892.

The trinity of linguistic learning, scientific research and dialectic skill has very seldom been exhibited with such fulness as in Dr. Gibson's masterly account of one of the most remarkably interesting phenomena in clinical medicine. The author deals with the gradual development of clinical knowledge in regard to the phenomena of Cheyne-Stokes breathing, and the continuous evolution of etiological doctrines with reference to their causation, presenting them in their historical, clinical, and critical aspects. The bibliography alone is astounding, and Dr. Gibson's recondite intimacy with the literature of the subject is, to compare small things with great, worthy of Buckle himself. This peculiar type of breathing, he tells us, was noticed by the father of medicine. Hippocrates thus refers to the condition of breathing in the case of Philiscus: "The respiration throughout, like that of a person recollecting himself, was rare and large." The many and various theories propounded by a host of scientific observers of all nations, and peoples and tongues, are dealt with in chronological order. This historical *resumé* is a most valuable piece of work, and must have cost the author infinite pains. In the critical remarks Dr. Gibson deals very ably with the classical hypothesis of Traube. He points out that this beautiful and ingenious explanation appears at first sight to fulfil all the requirements of a good working hypothesis. "The initial difficulty is that a simple and constant reduction of the functional activity of the respiratory centre could not by any possibility induce a change from regular rhythm to periodic rhythm of the respiratory movements, and that no real cause for the fluctuation in the blood supply is advanced." The conclusions to which Dr. Gibson arrives, in logical sequence, after a careful survey of the entire phenomena step by step, seem to be the most adequate hypothesis yet presented to the faculty. In order to form any conception of the entrinsic worth of this treatise it must be carefully read and pondered, and no short notice can do justice to its high claims.

THE MONTH.

NEW SOUTH WALES.

MR. EDMUND SAGER, Secretary to the Board of Health, states in his last "Report on Leprosy in New South Wales," just issued, "that on 1st January, 1892, there remained under detention at the leper lazaret 21 persons. During the year 21 persons were notified to the Board as suspected to be suffering from the disease. On investigation nine were found to be ill of some other disease, and 12 who proved to have leprosy were placed in the lazaret. Of these, two were natives of New South Wales of European descent; one a native of England, who had been in the colonies since 1862; one a native of Fiji of European parentage; and eight Chinese. The number remaining on the 31st December last was 30. The total number of patients admitted since 1883 was 43, three of whom were females and natives of New South Wales. Their nationality was as follows:—Natives of New South Wales 11, of whom three had died; 27 Chinese, of whom nine had died. In all, 73 cases had been officially recorded in Australia during the past 10 years, of whom 54 had been Chinese."

IN the Legislative Council, on March 16, Dr. Bowker submitted a motion for the immediate release of the Hoods, convicted of manslaughter. The motion was negatived.

THE M.B. degree of the Sydney University has been conferred on the following 10 students:—P. Bolke, E. H. Binney, Miss Iza F. J. Coghlan, T. A. Green, W. F. Litchfield, Samuel J. Richards, G. B. Sweet, G. E. Sweet, A. S. Vallack and Miss Grace F. Robinson.

THE hospital at Nymagee has been closed.

E. THOMAS, a medical agent in Sydney, sued Dr. F. W. Kane, of Newcastle, in the Metropolitan District Court on March 9, claiming a fee of 20 guineas for alleged services rendered in connection with his appointment as Medical Officer of the Newcastle United Friendly Societies' Dispensary. Both the President and the Secretary of the Dispensary stated in Court that Dr. Kane was appointed solely on the recommendation of Mr. Bruck, through whom all previous medical officers had been engaged; and it was also shown that the usual agent's commission in such cases was three guineas. However, as it appeared that Dr. Kane had agreed to pay Thomas the sum of £10 for including his name in a list of applicants, which Thomas had sent to the committee in Newcastle, the Judge had to give a verdict for £10 in favour of the plaintiff on the first count, and for the defendant on the second count.

DR. BADHAM, son of the late Professor Badham, of the Sydney University, has commenced practice at Mossman's Bay, near Sydney.

DRS. BARBER and **SCOTT** have been appointed Visiting Medical Officers of the Nepean Cottage Hospital at Penrith in the place of Dr. Shand.

DR. H. T. BURY has commenced practice at Junee.

DR. H. M. C. DALTON, formerly of Condobolin, has succeeded to the practice of Dr. W. A. Griffiths at Gunnedah.

DR. L. FITZ PATRICK has been reappointed Medical Officer of the Dubbo Hospital.

DR. H. L. MAITLAND has been elected Senior Medical Officer, and Drs. C. E. Corlette and W. J. Shirlow Junior Medical Officers at the Sydney Hospital.

DR. GARRETT, of Hyde Park, Sydney, is about to visit the old country. During his absence his practice will be carried on by Dr. Sydney Jamieson.

DR. A. JARVIS HOOD has removed to "Elmley House," 151 Elizabeth-street, Hyde Park.

DR. W. MCDONNELL KELLY has commenced practice at Elizabeth-street South, Sydney, at the house formerly occupied by Dr. Breneman, and more recently by Mr. Horton.

DR. H. E. LEE has settled at Gunnedah.

DR. A. WATSON MUNRO, of Liverpool-street, Sydney, returned to the colony by the R.M.S. "Oceana" after a year's absence in Europe.

DR. H. C. PURCELL has removed from Waverley to 13 Jamieson-street, Church Hill, Sydney.

DR. B. SCHWARZBACH has removed from Macquarie-street to College-street, Hyde Park, Sydney.

DR. W. E. STRONG has commenced practice at Drummoyne, near Sydney.

DR. A. M. SULLY has succeeded to the practice of Dr. C. O. Birch at Riverstone.

DR. JAMES P. WHITE, late of Natimuk and Traralgon (Vic.), has commenced practice at Muswellbrook.

NEW ZEALAND.

THE Canterbury Branch of the New Zealand Medical Association denounces the evil effects of the present home lesson system. One member suggested that the children should be sent to bed at an earlier hour, and do their home work in the morning. Another member dwelt on the faulty ventilation of schoolrooms.

MR. CHARLES HENRY JOHN HOVELL, M.R.C.S. Eng. 1860, Surgeon of the R.M.S. "Monowai," died on board the steamer on March 14 between Honolulu and Apia. The deceased gentleman had practised for over 20 years in the Coromandel and Auckland districts.

DR. R. CHURCH, a graduate of the University of New Zealand, has been appointed a Medical Officer of the Mount Ida District Hospital at Naseby (Otago) in the place of Dr. J. G. Jeffreys, removed.

DR. D. COLQUHOUN, of Dunedin, has left for England on a holiday.

DR. M. COUGHTREY, of Dunedin, has erected a private hospital on his property at St. Clair, a seaside suburb of Dunedin.

DR. JOHN CUNNINGHAME, of Port Chalmers, has been appointed Acting Health Officer for the Port of Dunedin.

DR. A. E. MARSACK, late of Drs. Anderson and Marsack, of Tunbridge Wells (England), has commenced practice at Whangarei, 95 miles N. of Auckland.

DR. T. L. PAGET, a recent arrival, has settled at Stratford, 30 miles S. of New Plymouth.

QUEENSLAND.

THE Government have offered the position of Director of the Bacteriological and Pathological Institute to Dr. Loir, formerly Assistant to Dr. Pasteur, at a salary of £500. If this is accepted, Dr. Loir, who is now in Paris, will be entrusted with the purchase of a complete apparatus for furnishing the laboratory.

OVER 40 inches of rain fell in Brisbane during the month of February last.

DR. A. B. BROCKWAY, of Southport, has been appointed Resident Surgeon at the Brisbane Hospital in the place of Dr. Kent.

DR. C. G. KENT, of the Brisbane Hospital, has been appointed Resident Surgeon at the Peak Downs Hospital, Clermont.

DR. E. J. R. MOHS has removed from Port Douglas to Muldiva, the centre of the Chillagoe mining district, 1,050 miles N.W. of Brisbane. Dr. Mohs has been appointed Medical Officer of the hospital at Muldiva in the place of Dr. R. Broom.

SOUTH AUSTRALIA.

AT the civil sittings of the Supreme Court, held in Adelaide last month before Mr. Justice Bundry and a jury, Clement Sabine, a young member of the legal profession, sued Dr. T. K. Hamilton, of Adelaide, for £2,000 damages for alleged unskilful medical treatment. The case for the plaintiff was that defendant, to whom he applied for medical advice, unskilfully and negligently treated him by administering bromide of potassium and by injecting strychnine on several occasions between the 2nd April and the 6th July, 1889, and by applying an electric current to his head and eyes between the 16th May and the 26th September, 1889; also, that defendant about the 10th May injected through plaintiff's skin a drug called pilocarpine in an improper and dangerous quantity. In consequence of the treatment, plaintiff alleged that he partially lost the power of locomotion, and great physical weakness ensued. Moreover, he had been suffering pain since, and had not been properly able to carry on his work. Mr. J. H. Symon, on behalf of defendant, contended that no case had been made out against Dr. Hamilton, and his Honor concurred with Mr. Symon, and ordered that a nonsuit be entered, with costs.

DR. WALTER NORMAN has removed from Adelaide to Yankalilla, 46 miles S. of Adelaide.

TASMANIA.

DR. JOHN BOX has settled at George Town, 37 miles N.W. of Launceston.

VICTORIA.

SIR ANTHONY BROWNLESS, Chancellor of the University of Melbourne, has received the following letter from Professor Halford, as Dean of the Faculty of Medicine:—"My Dear Sir Anthony,—The members of the Faculty of Medicine have requested me to convey to you an expression of the great pleasure with which they regard the honourable recognition it has pleased Her Majesty the Queen to accord to your long and eminent services to the University. They see in you the founder and father of the medical school—the most successful school in the Southern Hemisphere. They remember with gratitude your unfailing courtesy, your kindly counsel and assistance. They unite in wishing you long life, good health and all happiness."

DRS. EDWARD CHAMPION and **W. E. DAVIES** have been elected Senior and Junior Resident Surgeons respectively of the Ballarat Hospital at £150 and £50 per annum.

THE Honorary Medical Staff of the Castlemaine Hospital have resigned, owing to a disagreement with the Resident Surgeon.

STEPS have been taken to establish a "St. Vincent's Hospital" in Melbourne.

DR. R. K. BIRD, late of Richmond, has taken charge of Dr. Cross' practice at Horsham during that gentleman's visit to Chicago.

DR. JAMES COANE, late of Brighton, has commenced practice at Malvern, near Melbourne.

DR. THS. SYDNEY DAVIES, late of Northcote, has settled at Wedderburn.

DR. F. H. LANGLANDS has commenced practice at 102 Collins-street, Melbourne.

DR. F. E. LITTLEWOOD has taken the place of Dr. J. A. Neptune Scott, of Warrnambool, during the latter's absence in Chicago.

DR. GEO. MOORE, of St. Kilda, has been appointed a member of the Medical Board of Victoria, vice Dr. Jas. Robertson, deceased.

DR. DAVID MURDOCH has settled at Wangaratta.

DR. J. STEELE PARK has removed from Northcote to Rosedale.

DR. R. S. STEPHENSON, late Resident Surgeon of the Homœopathic Hospital, has commenced practice at 191 High-street, St. Kilda, Melbourne.

DR. R. TATE SUTHERLAND has gone into partnership with Dr. Malcolmson of Port Melbourne.

WESTERN AUSTRALIA.

DR. F. J. INGOLDBY, of Albany, has been appointed Surgeon-Captain in the W. A. Local Permanent Force.

DR. D. E. WILLIAMS, a recent arrival, has been appointed Resident Medical Officer of the Gascoyne district, also Public Vaccinator for the district of Carnavon, and Health Officer for the Port of Carnavon.

MEDICAL APPOINTMENTS.

Archer, Edmond Lewis, M.R.C.S.E., to be Health Officer at Moonta, S.A.

Box, John, M.B. Melb., to be Health Officer for the district of George Town, Tas.

Bruehl, Siegwart, M.D., to be Health Officer for the district of Hawker, S.A.

Dalton, Henry Moyer Cyril, M.B. *et* Ch. M. Aberd., to be Government Medical Officer and Vaccinator for the district of Gunnedah, N.S.W.

Dryden, Douglas Dixon, L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glas., to be Public Vaccinator for the district of Mount Cook, N.Z.

Kennedy, John, M.D. *et* Ch. M. Qu. Univ. Irel., to be Health Officer for the district of Macquarie, Tas.

Koch, Albert Edward, M.D., to be Port Health Officer and Government Medical Officer at Cairns, Q.

McDougall, Richard, M.D. *et* Ch. M. Glas., to be Health Officer for Gladstone, S.A.

Park, John Steele, L.R.C.P. Lond., to be Health Officer for Rosedale shire, Vic., vice Dr. H. B. Horne, resigned.

Woodforde, Alfred Ernest, L.R.C.P. *et* R.C.S. Ed., to be Government Medical Officer and Vaccinator for the district of Walgett, N.S.W.

BIRTHS, MARRIAGES, AND DEATHS.

*** The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BROWN.—March 28, at Parramatta, N.S.W., the wife of W. Sigismund Brown, M.R.C.S., of a son.

FETHERSTONHAUGH.—On the 22nd February, at Talbot, Vic. the wife of Dr. R. T. Fetherstonhaugh, of a son.

OWEN.—On the 4th March, at North Fitzroy, Melbourne, the wife of F. J. Owen, M.D., of a son.

HUXTABLE.—March 11, at College-street, Sydney, the wife of L. R. Huxtable, M.B., of a daughter.

NIESCHE.—On the 11th March, at Adelaide, the wife of F. W. Niesche, M.D., of a son.

REPORTED MORTALITY FOR THE MONTH OF FEBRUARY, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. Wales.																
Sydney	111,244	280	150	75	...	1	1	...	2	14	11	6	5	9	1	...
Suburbs	275,615	837	324	178	...	1	6	1	4	33	23	14	19	9	...	4
New Zealand.																
Auckland	31,268	54	32	13	...	...	1	...	1	4	4	1	4	...	...	1
Christchurch	16,704	30	13	3	...	...	1	...	2	...	1	1	2	...	...	...
Dunedin	23,302	52	20	4	...	...	...	...	1	1	6	2	1	...	...	...
Wellington	33,786	81	43	17	...	...	...	1	1	3	3	1	7	4	...	1
Queensland.																
Brisbane	56,075	137	56	25	...	...	1	...	1	9	8	5	7	2	...	...
Suburbs	37,582	74	22	11												
South Australia	329,903	...	...	...	...	...	...	...	...	...	...	...	...	..	...	..
Adelaide	38,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tasmania.																
Hobart	35,007	98	51	12	...	...	2	...	...	3	3	3	4	...	...	...
Launceston	22,313	68	37	14	...	...	...	...	1	2	2	4	3	1	...	...
Country Districts	96,326	217	69	...	...	...	7	1	1	4	4	...	...	...	...	...
Victoria.																
Melbourne	71,881	118	63	328	...	...	1	4	19	49	64	33	34	28	3	8
Suburbs	417,304	1,109	602													
Western Australia*	...	...	...	...	...	...	...	...	...	...	...	...	..	...	..	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR FEBRUARY, 1893.

Stations.	Thermometer.				Mean Height of Barometer.	Rain.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. : Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	...	...	...	...	...	...	...	...
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	89·4	74·2	61.2	29·802	40·389	25	85	...
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	...	...	...	...	...	...	...	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	...	...	...	...	...	...	...	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	94·	63.49	43·5	29·805	0·20	5	62	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	87·	66.50	39·5	29·856	0·08	8	82	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	103.1	66.5	48·6	29·840	0·246	3	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	...	...	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	84·2	70·	56·3	29·977	3·18	19	80	N.E.
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° 47′ 25″ E.	...	...	...	...	...	...	...	...	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

THE FLOOD OF 1893.

READ BEFORE THE MEDICAL SOCIETY OF QUEENSLAND.

By DAVID HARDIE, M.D.

DURING the first and third week of Frebruary last, Brisbane was visited by the most disastrous floods ever experienced by Europeans here, whereby many of the low-lying parts of the town and suburbs were submerged in water, and subsequently, as the water receded, covered with foul-smelling mud and *débris.*

Under ordinary circumstances, we know that there is a pretty intimate connection between disease and the condition of the weather prevalent at the time; and such an abnormal and decided fall of rain, with its attendant atmospheric conditions generally, cannot but be followed, either directly or indirectly, by some immediate or remote consequences to the health of the community. In previous papers* I have endeavoured to show that meteorological conditions such as these, are coincident with a low mortality from typhoid fever and an increased prevalence of laryngeal diseases, croup and diphtheria. As we have unfortunately had two other floods in Brisbane within the last few years, it may be of interest to examine the mortality statistics of these two periods in order to test the accuracy of those conclusions, and in the hope that, profiting by past experience, we may have some practical idea of the class of disease that will possibly be more or less common here during the next few months.

A visit to the parts previously inundated would at first lead us to look for an epidemic of either malarial or enteric fever, or both; but in practice this is not found to be the case. It is true that we may meet with a few cases of febricula immediately afterwards, but the symptoms are those *mainly* of congestive or catarrhal conditions, and not of a specific fever, and caused not so much by a specific germ as by direct and prolonged exposure to wet and cold. In one of the papers referred to, it has been stated that typhoid fever is associated with certain atmospheric conditions exactly the reverse of those found in connection with a time of flood—namely, high barometric pressure, high temperature, and high mean and absolute range of temperature, together with low relative humidity, rainfall, and number of rainy days and low amount of cloud. Not only so, but this period is preceded for several months by a similar state of the weather; and in the absence of this preparatory period, an epidemic of typhoid fever is probably, unless under special circumstances, an impossibility.

In theory also we should naturally expect malaria to be very prevalent; but we must bear in mind that this is not naturally, or at least has not been for many years, a malarial district; that the conditions favourable to the production of the miasm are not in the subsoil but exist only on the surface, and even there, in the presence of subsequent heavy rainfall, only temporarily. Moreover, we should not expect it for several weeks after the subsidence of the flood, so that, upon the whole, the fear of an outbreak of malaria is, from every point of view, somewhat remote. So at least it proved in connection with the two last inundations, for neither at the time nor after the floods in January, 1887, and March, 1890, was there an increased admission rate to hospitals, or mortality, for either malaria or typhoid fever. As far as can be seen, indeed, these floods did not in the slightest degree affect the one or the other in the admission or death rate. It is possible that the number of admissions of the nature above indicated may have been increased in the present instance inasmuch as the inundation was greater in degree and continued over a more extended period; but, for reasons already given, this is only a temporary matter, and will not materially affect the mortality.

Further examination of statistics for the five years 1887-91, however, shows that the admission and death rate from laryngeal and respiratory diseases rose very high the following autumn and winter respectively.

1. *Laryngeal Diseases.*—The following table will show the relative magnitude of the mortality from diphtheria for the greater part of the district of Moreton, in April and May, 1887, and in May and June, 1890, as compared to the mean of the other three years under observation:—

MORTALITY FROM DIPHTHERIA PER 100,000 POPULATION PER ANNUM.

APRIL AND MAY.		MAY AND JUNE.	
1887.	Other Three Years.	1890.	Other Three Years.
121·5	35·5	111·2	69·0

or, in other words, the death-rate from diphtheria in April and May, 1887, was about three-and-a-half times, and in May and June, 1890, nearly double the mean of the other three years, 1888-89 and 91, for the same periods. The difference here is so decided as to justify us in assuming that there was a pretty intimate connection between the high mortality in both cases, and the previous abnormally high rainfall and generally inundated condition of the town and surrounding district. There can be little doubt that independently of this the mortality would have been specially high in 1890, as the atmospheric conditions favourable to a high death-rate—namely, low barometric pressure, and low mean and absolute range of temperature, high relative humidity and rainfall, and large number of rainy days—were more or less present from the beginning of the year; but that the flood itself materially contributed towards this increased death-rate there can, in my opinion, be little doubt. It is true that in June and July, 1888, the mortality was also high, and that with the exception of a high rainfall in February, and a comparatively large number of rainy days during the first few months of the year, the meteorological observations generally would not lead us to expect a high death-rate. This, however, only shows that an actual flood is not necessary to raise the mortality, and it is possible that had it existed in this instance the rate might have been higher still.

---

* One on "Typhoid Fever," read before the Health Section of the Intercolonial Medical Congress, Sydney, September, 1892, and another on "Diphtheria," read before the Queensland Medical Society in October.

It may here be noted that there was an interval in 1887 of three months, and in 1890 of two months, between the inundation and the period of maximum mortality from diphtheria. Why there should be this difference of one month it is not easy to say, unless it be that in the latter case the flood occurred in March, when the atmospheric conditions are more favourable to the propagation of diphtheria germs than in the hot months of summer.

I have stated elsewhere* that the death-rate from diphtheria in the early months of the year depends somewhat upon the state of the weather during the last few months of the preceding year, showing that there is possibly a germination period *in nature* for the development of the bacilli of diphtheria of two or three months' duration; and this assumption is strongly supported by the above considerations.

2. *Respiratory Diseases.*—As regards these, we find that the admission rate to hospitals for all respiratory diseases in August, 1887, and in May, June, July, and August, 1890, and the death-rate from pneumonia during the months of July, August, and September, are in both cases unusually high. The following figures will show the extent of these as compared to the mean of the other three years :—

ADMISSION RATE FOR RESPIRATORY DISEASES PER 100,000 POPULATION PER ANNUM.

AUGUST.		MAY, JUNE, JULY, AND AUGUST.	
1887.	Other Years.	1890.	Other Years.
441·6	262·8	435·9	276·0

It will here be observed that the number of admissions to hospitals in this district for the above-noted months in the years of a flood is nearly double the average of other years under observation. The difference in mortality, however, is more decided, as will be seen from the following :—

MORTALITY FROM PNEUMONIA PER 100,000 POPULATION PER ANNUM—JULY, AUGUST AND SEPTEMBER.

1887.	1890.	Other Three Years.
73·6	73·6	17·9

These two tables show that not only was there a greater prevalence of respiratory diseases in the late winter months of 1887 and 1890, but they must have been of a more malignant type; for while the admission rate for these increased nearly twofold, the mortality from pneumonia, as will here be seen, increased fully fourfold. This difference of in both admission and death rate is so great that it cannot possibly be a mere coincidence. It may be mentioned that in both years the winter was specially cold, the mean temperature in the shade in June, 1887, and July, 1890, being lower by about 5° than that of any other year, and that the state of the weather otherwise was favourable to a high death-rate from respiratory diseases. Why that should be so, and whether it depended in any way upon the previous flood, is a question not for me, but our able meteorologist, to answer. The latter is at least an indication of what meteorological conditions may follow and what diseases we may expect.

On the strength, therefore, of the undoubted connection between a high relative humidity and rainfall and a high mortality from laryngeal diseases, supported by experience gained from the last two floods in Brisbane and district, I would venture to say that we shall probably have an increased prevalence of croup and diphtheria in April and May, and possibly also of respiratory diseases in the late months of the coming winter. The latter will, of course, to a great extent depend upon the meteorological conditions of the next few months, while the former depends upon two factors that already exist, and probably will exist for some little time—namely, a suitable soil and favourable weather for the propagation of the bacilli.

---

* "Notes on some of the more common Diseases in Queensland in relation to Atmospheric Conditions."

Preventive Measures.—Under these circumstances I hope I may be pardoned in making a few suggestions, which, I must premise, are intended as preventive measures solely for those diseases that will possibly prevail in the near future, namely, croup, diphtheria, bronchitis and pneumonia, and which for the purpose intended may be followed *only* until their period of maximum intensity—autumn and winter—have passed over. Should these suggestions be wrong, I hope you will correct me, and if on the other hand they are incomplete, I shall expect you to supplement them. In doing so for laryngeal diseases these objects have to be kept in view:—

(A) To remove, destroy or inhibit the vitality of those germs that may already be in process of evolution;

(B) To maintain a high state of sanitation, and so provide against their future development;

(C) To reduce to a minimum the risk of transferring the contagium from an infected to a non-infected house or district.

In order to carry out these indications, it is advisable—

A. 1. That all slush and mud be removed as speedily as possible, by whatever means are considered most effectual. Nature provides an efficient scavenger in the rain that falls—provided it be sufficiently heavy—subsequent to the inundation. In the case of the recent twin-flood she was certainly too liberal in this respect after the first, and probably not liberal enough after the second.

2. That some recognized disinfectant be applied freely every day for a week or more to parts in town previously under water, and more especially to swamps near inhabited dwellings.

B. 1. That all damp, marshy ground be efficiently drained. By this means the soil is freed of its superabundant moisture, the relative humidity of the air lowered, and the temperature in winter raised; or, in other words, the soil as well as the atmospheric conditions are made less favourable for the development of the bacilli of diphtheria. This is a matter that demands *par excellence* the most serious consideration of all, inasmuch as it possibly strikes at one of the most potent factors in connection with the causation of these diseases. The fact of the contagium being directly communicated from one person to another, or from the cow or other animal to man, does not lessen the force of this, or materially increase our knowledge of the original cause of diphtheria; for even though traced in this manner the question still remains, why do these in the first instance suffer from diphtheria, or from some disease that can cause diphtheria in another, and why is it possible for the contagium to be so communicated at one time and not at another? We do not know to what extent bogs and marshes may serve as a breeding ground for the development of diphtheria bacilli, but we know that the decaying vegetable matter necessarily existing there in the presence of moisture offers a favourable medium for the propagation of germs generally; that cattle frequently graze on these parts; that the bacilli of diphtheria have been detected in milch cows; and that diphtheria has been communicated from these to man directly through the milk supply. We also know under what meteorological conditions * the disease becomes prevalent; that some of these conditions are always present, more or less, near marshy ground; and that the latter, therefore, tends to make the atmospheric conditions more decided, and still more favourable for the development of the diphtheria bacilli.

In connection with the drainage of these parts it may be well to bear in mind that, when from any cause this cannot be efficiently carried out, they may at least with benefit be converted into ponds. "The conversion of a swamp or low-lying, damp piece of ground into a lake will add materially to the dryness and amenity of the climate of the surrounding district; and the rainier the locality the greater will be the advantage gained." †

2. That all public schools, as well as private dwellings, be freely ventilated, and the grounds in connection with these kept absolutely free from rubbish and as dry as possible. The water supply in both cases to receive special attention and supervision.

---

* Barometer and mean temperature .. .. .. Low.
Relative humidity, number of wet days, and amount of cloud .. .. High.

† Buchan.

3. That all public and private sewers and drains be largely and regularly flushed as often as it is considered necessary by recognized sanitary authorities, and, if required, liberally treated with disinfectants.
4. That all fowl-houses in town be cleaned out every day, and sickly fowls at once killed, removed and buried.
5. That all mattresses and bedding be exposed as often as practicable to the direct rays of the sun. This is a matter of the first importance, and all the more necessary if the relative humidity of the air be high.

C. 1. That all public dairies be regularly and systematically inspected by a competent health officer or veterinary surgeon, and all eruptive diseases in cattle be notified to the proper authorities, as it has been proved that diphtheria may be communicated directly from the milch cow to man through the milk supply. § It is possible that this may afford some explanation of the undoubted occurrence of diphtheria in houses and districts that are apparently in a perfectly sanitary condition.

2. That all drinking water be boiled and filtered, and all milk boiled, or otherwise cooked, previous to use.

3. That all cases of sore throat be immediately notified and isolated; and should the disease prove to be of a diphtheritic nature, children of the same family prohibited from attending public or private schools. Where isolation cannot be satisfactorily carried out at home, this may be done in a suitable hospital.

I would also venture to suggest, that for the next few months, cases of sore throat in children should be looked on as possibly in the primary stage of diphtheria, and unless contra-indicated treated by medical men accordingly. No harm is thereby done if the diseases proves to be of a less serious nature, and much valuable time saved, if our worst suspicions are ultimately realized.

In connection with the possible prevalence of respiratory diseases in winter, besides using ordinary precautions, we may also see that our clothing is of such material as to retard the loss of heat by conduction, and also to some extent by evaporation, according as the weather is wet or dry respectively.

---

§ *Brit. Med. Journal*, Nov. 19, Dec. 10, 1892; Jan. 7, 1893.

NOTES ON A CASE OF PULMONARY HYDATIDS.

READ BEFORE THE BALLARAT BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY ROBERT SCOTT, M.B., C.M., HONORARY PHYSICIAN BALLARAT HOSPITAL, VICTORIA.

◆

H. S., *æt.* 28, single, engaged in pastoral pursuits, first complained of severe pain over the base of the right lung, accompanied by fever and cough, in October, 1891. This attack followed immediately on a visit to Melbourne, and ran the course of an attack of acute pneumonia with pleurisy, from which he partially recovered, but did not regain his former health, and had a persistent cough, accompanied by slight attacks of hæmoptysis, and in the intervals blood-stained sputum.

He first came under my observation in April, 1892. At that time my notes state that there was marked dulness at the right apex, with prolonged expiration and a dull area over the right base. Coarse mucus râles were present all over the right lung. Left lung was healthy; tongue somewhat furred. Patient's friends state that every night he coughs during sleep, and expectorates a considerable amount of blood, the bedclothes being stained in the morning. The patient appears to have become used to the cough, so that he sleeps through it. Physically he is well built, but spare.

He was put on a mixture containing ext. ergot. liq. and syr. prun. virg., and when I next saw him, about one month later, the physical signs were much improved, and the bleeding had quite ceased, though the dulness was still present. His appetite had improved, and altogether he stated that he felt much stronger, and was able to do his work.

This condition persisted for some months until September, 1892, when he had a relapse. I did not see him at this time, but the cough appears to have been very troublesome, and the sputum deeply tinged with blood, and he had one or two severe attacks of hæmoptysis. He rallied however, and when I saw him in November his condition was much the same as at the last examination in May.

In December he had a severe attack of coughing, and, as he described it to me, there was a sudden rush of fluid, and he felt as if he were going to suffocate, when he finally expectorated a "skin" about the size of a large peach. I then asked him very particularly whether he had ever had any such attack previously or had expectorated any "skins" similar, and he said he had had a simliar attack shortly after he was first laid up (in October, 1891). He also said that about about three months before his first illness two pigs had been killed on the station, and that they were both full of hydatids, and that the "skin" he had expectorated was just like one of these. I told him to forward me the next "skin" he brought up, which he did about a fortnight later. I showed this to Dr. Ochiltree, who agreed with me that it was undoubtedly hydatid.

In January I again saw him, and then persuaded him to come to Ballarat and put himself under treatment, as he was losing weight, and still had the persistent and hacking cough with frequent attacks of hæmoptysis more or less severe.

He came to Ballarat on the 24th January, 1893. On the 25th Drs. Ochiltree, Morrison and myself had a consultation, and we decided to make an exploratory aspiration. Chloroform was administered and a Potain's needle introduced in the seventh interspace and in a line with the angle of the scapula, when a small quantity of thick, stinking pus with shreddy membrane was withdrawn. This slight operation set up most violent coughing with hæmoptysis, which became most alarming, about a pint and a-half of pure arterial blood being expectorated. Ergot was given, and the bleeding gradually stopped. Two days, and again four days later he had a return of the hæmoptysis, in each attack about a pint of blood being expectorated. I should state that at this time the hydatid fœtor was markedly present.

Absolute rest in the horizontal posture was strictly enforced, with light, non-stimulating diet. The physical signs showed some improvement, becoming more vesicular in character, but expiration at apex and over the seat of aspiration were prolonged, and in the latter position the auscultatory sounds were cavernous over an area which could be covered by a crown piece.

During this period he expectorated small pieces of shreddy membrane, which, under the microscope, presented the characteristic laminated appearance. The sputa and breath had the fœtor which is almost pathognomonic of hydatid. No hooklets were now, nor at any later period, found after careful and repeated examinations.

Patient progressed satisfactorily until the 17th February, when without any known cause a most alarming hæmorrhage came on, the bleeding being bright and arterial, and which only stopped when a condition of syncope was induced, leaving him to all appearances moribund. He rallied however, and for the next 10 days improved very much; appetite good; cough not troublesome; pulse regular; temperature varying from 98 in the morning to 99 or 99·4 at night; slept well.

Treatment during this period was free depletion of the bowels with saline purges; light, non-stimulating diet and hæmostatics by the mouth, with hypodermic injections of $\frac{1}{150}$gr. ergotinin every four hours.

On the 26th February the sputum was streaked with blood. During the next three days slight hæmorrhages occurred, and on the 2nd March he had an attack as alarming as the one 14 days before, and which only ceased when the blood pressure was lowered to such a degree as to induce a condition of syncope. The patient's condition was so critical that we requested further advice.

Mr. T. N. Fitzgerald saw the case with us on the 5th March, and he considered the radical cure by resection the only course to pursue. At the same time the extreme danger of the operation in this case was pointed out clearly to the patient, and he was ready to take the risk.

On the 12th March Mr. Fitzgerald operated, assisted by Drs. Ochiltree, Morrison and myself. Chloroform was administered with $\frac{1}{3}$gr. morph. and $\frac{1}{150}$gr. ergotinin hypodermically. The incision was made over the seat of the former aspiration, and the operation proceeded on the usual lines until the pulmonary pleura was clearly in view. A fine exploratory needle was then introduced, and when found to be in the cyst was withdrawn and a Weiss' dilator substituted. Almost instantaneously the patient expelled by a cough the decomposing remains of the cyst, but this was followed by a rush of blood both from the wound and the mouth. An attempt was made to control the bleeding by plugging, &c., but unavailingly, and the gush of blood was so severe that the patient was *in articulo mortis* in a very few seconds.

By permission of the friends an examination was subsequently made, and it clearly showed the cause of the bleeding, and how death from bleeding must have ensued sooner or later. As will be seen the fibrous membrane lining the cyst wall is incorporated with one of the pulmonary arteries, and in this way the vessel was kept patulous. About a quarter-of-an-inch from the artery a large bronchial tube opened, and was incorporated with the cyst wall in like manner to the blood vessel. This condition then clearly explained the repeated and serious hæmoptysis, which had been such a feature of the case.

There was also a second hydatid cyst at the upper and back part of the lung. The physical signs over the dull area in this portion of the chest wall were such as to lead us to the conclusion that the dulness was due to consolidation following on the initial attack of pneumonia. The flattening under the clavicle and the auscultatory sounds led us to this conclusion.

No doubt anything causing a disturbance of the cyst wall or its contents set up bleeding from the artery, which was only checked by clot filling up the cyst, combined with the resistance of the chest wall.

As soon as this was removed by the resection and expulsion of the cyst contents, uncontrollable hæmorrhage occurred. Mr. Fitzgerald stated that he had operated in over 100 cases of pulmonary hydatids, but had never experienced a case similar where a large blood vessel opened directly into the cyst, and was kept from retracting by the fibrous membrane. Cases have been recorded in which death has occurred from hæmoptysis caused by degeneration of the vessels on its walls, but in this case attacks of hæmoptysis had occurred comparatively early, and certainly before any suppuration was present. Dr. Davies Thomas, in a paper on "Operative Treatment of Echinococcus Cysts," says: "I am convinced that patients suffering from moderately-sized or large pulmonary hydatids are most safely treated by free openings into the sac and immediate removal of the parasite. . . . I am disposed to operate upon any case of pulmonary hydatid in which there is proof positive of the nature of the disease and its precise locality, with one proviso, viz., that there shall be a distinct, even though limited, area of dulness on the chest wall; when, on the other hand, the alteration of the percussion note is to the production of a tympanitic note, which seems to me to indicate compression of lung which still contains air, I should feel disposed to puncture wirh the aspiratory needle."

Speaking of puncture, Dr. Thomas says: "The results of aspiratory puncture show only about half the ratio of deaths as compared with puncture with an ordinary trocar. The mortality rises with the number of tappings required. The best results are met with in living juvenile echinococci of moderate size, the worst in old, degenerated or suppurated cysts."

This paragraph sums up the position shortly. No doubt we have all met with juvenile living echinococci which have undoubtedly been cured by a single aspiration, but when suppuration is present I am confident no treatment will do any good except free incision.

In the present case Drs. Ochiltree, Morrison, and myself were deterred from operating owing to the exceptionally grave symptoms present, in which opinion Mr. Fitzgerald quite concurred, but, as he said, "if left alone death is certain; the operation will give him a chance of recovery." This case appears to me one of very great interest in the history of hydatid tumours. The history of the attack beginning suddenly and running the course of an acute pneumonia, and as the patient during the initial stages took little or no care of himself and insisted on doing his work when he should have been in his bed, together with the absence of any characteristic expectoration (with the exception of the one occasion which he said nothing about till months later), all led one to place the symptoms as due to consolidation following on the acute inflammation.

Even had the diagnosis been clear the result of any operative treatment earlier could not have been otherwise than fatal, for the cyst appears to have formed in, or at least involved, the artery from its inception; and in this way attacks of hæmoptysis occurred at intervals all through the illness.

A case such as this brings home to one the gravity of pulmonary hydatids, and when one considers the vascularity of the lungs it is a matter of surprise how the larger blood vessels are not more often involved by such an octopus growth as the echinococcus. (Specimen was shown at the meeting.)

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF QUEENSLAND.

The 75th general meeting was held in the Courier Building, Brisbane, on March 14 at 8.30 p.m. Present: Drs. Hardie (in the chair), J. Bancroft, P. Bancroft, Byrne, Thomson, Turner, Gibson, Hoggan, MacNamara, Booth, Wheeler and Love (Hon. Secretary). Visitor: Dr. Lawes (Sick Children's Hospital).

The minutes of last meeting were read and confirmed.

It was explained that the February meeting had not been held owing to the floods, the Courier Building being inundated.

Dr. Gibson gave notice that at the next meeting he would move "that the probation clause in by-law 16 (which requires six months' residence before a medical man becomes eligible for membership) be suspended in the case of men elected to resident hospital appointments."

The **Hon. Secretary** moved that a member of Council be appointed to take on the duties of Librarian. Seconded by **Dr. Thomson**. Carried.

On the motion of **Dr. Thomson**, seconded by **Dr. Byrne**, Dr. Turner was appointed Librarian.

Dr. Bancroft showed a case of enormous tumour of the thigh with a circumference of 38 inches—probably enchondromatous undergoing sarcomatous degeneration.

Dr. Thomson was requested to take a photo. of the case.

Dr. Bancroft related the history of a case of a tumour springing from the tibia, which latter, on the removal of the tumour, bled so freely that amputation had to be performed.

Dr. Love read the following paper:—

RECORDS OF THE LADY BOWEN HOSPITAL, BRISBANE.

By Wilton Love, M.B., Hon. Physician to the Lady Bowen Hospital.

Mr. President and Gentlemen,

I propose to-night to assume the *role* of chronicler, but in a medical sense only, to our maternity hospital, and to give a *resumé* of the work done since its foundation. To do this involves a critical examination of nearly thirty years' records, and as during that period two generations of medical men have had the welfare of the institution in their hands, such an examination cannot fail to be interesting, especially in so far as it shews the tendencies of modern midwifery in a process of gradual development. In these late nineteenth century days one would certainly anticipate a considerable diversity in the practice of *any* branch of medical science at the beginning of such an interval as 30 years and that obtaining at the end of it. Such a diversity will probably be found to be less marked in the subject of midwifery than in that of any other of the medical sciences; but still we have many advances to note: the wheels of progress have sped fast during the past quarter of a century, and the growth of the tree of knowledge of other branches of medicine and surgery has thrown its shadow into the field of obstetrics.

For many ages, and in most lands, the practice of midwifery was almost solely in the hands of women, usually old women—*femmes sages*—hence it is not wonderful that slow progress was made until the subject was taken up by men who devoted the full tide of their energies and intellects, not yet superannuated, to relieve the sufferings and dangers of maternity. In spite of midwifery being a sphere which was considered peculiarly that of women, we have few names to which the science is indebted for signal additions. For one Madame Lachappel we have a Smellie, a Tanner, a Simpson, a Spiegelberg, a Barnes, and dozens of others little less illustrious. I do not wish to be unchivalrous, but I would ask is it not the same in other fields where women compete with men—how many female composers, artists, authors, poets, in the front rank has the fair sex produced? The analogy holds good in midwifery.

The Brisbane Lying-in Hospital, as it was then called, was opened on the 1st November, 1864. It was then a small cottage in Leichhardt-street, with four beds for the reception of patients.

In 1867 a grant of a piece of ground was obtained from Government in Ann-street, next the site of the present School of Arts. A brick hospital was erected on this site and the institution was named after Lady Bowen, the wife of the then Governor, who was patroness. Here the work was carried on till 1889, when the building and site were sold for £6,000, and the present site on the highest part of Wickham Terrace was acquired. While the new hospital was being built the patients were accommodated in a two-story brick building in Wharf-street, which was occupied for nine months, during part of which time work was suspended on account of puerperal disease having broken out, the building being quite unsuited for a hospital. On May 10, 1889, the foundation stone of the present hospital was laid by Lady Musgrave, and on January 1, 1890, the doors were opened to patients. So much for a brief *resumé* of the various *habitats* of the institution.

We may now turn for a few moments to the members of the visiting staff who have served the hospital during the 30 years. The regulations have always provided for six visiting physicians. When the hospital was opened on November 1, 1864, the following names are entered as comprising the staff: Ronald Gunn, Robert Hancock, F. Heeny, J. F. Mullen, and J. B. Temple. In 1866 the names of J. B. Mason, K. I. O'Doherty and J. Bancroft were added. In 1868 the numbers had dropped to three, Drs. Bancroft, Mullen, and Gunn, and in 1869 to two, Drs. Mullen and Gunn. These two gentlemen, finding the work too arduous, especially as immigration had been revived, appealed to the committee for assistance or remuneration. As the result of an appeal to the profession, Drs. Bell, Cameron, Hobbs, and Hancock responded, and in 1871 Dr. Bancroft again joined the staff. Since then the following names in addition have appeared on the register in chronological order: Drs. Andrews, Purcell, Rendle, Lyons, Joseph, Marks, Concannon, P. Smith, Power, Grant Finley, E. O'Doherty, W. Kebbell, Hill, T. L. Bancroft, Tilston, Love, Hardie, Connolly, and W. S. Byrne. Of these 27 names, Dr. Mullen served 14 years, and Drs. Hobbs and Lyons 12 each. The present staff consists of Drs. Lyons, W. Kebbell, Wilton Love, D. Hardie, F. G. Connolly, and W. S. Byrne, with Dr. C. F. Marks as Consulting Physician.

To turn to the more immediate object of this paper, we will first consider the statistics in the aggregate. From November 1, 1864, to February 1, 1893, a grand total of 3,064 women were attended in the hospital. Of this number only 16 were admitted for abortion and 33 for premature confinement, leaving 3,015 women who were attended at full term.

Grand Mortalities.—Of these 3,064 cases 26 mothers died, an average of nearly one in 118, or ·85 per cent.

For the purposes of comparison I have divided the 30 years into three periods of 10 years each.

MATERNAL MORTALITY

Date.	Number of Confinements.	Maternal Mortality.		Maternal Mortality Per cent.
1864-1874	581	9	1 in 65	1·54
1875-1884	924	9	1 in 102·6	·97
1885-1893 (Feb.)	1,559	8	1 in 195	·51
1864-1893	3,064	26	1 in 118	·85

Infantile Mortality.

Taking the total of 3,064 mothers and adding 36 for plural births, and deducting 16 miscarriages and 33 premature births, we find that 3,051 children were delivered at or about full term; boys, 1,533; girls, 1,418; no record of sex of stillborn. Of this number 152 were stillborn, and a further total of 44 died before the mother was discharged from hospital, a mortality of 1 in 15·5, or 6·45 per cent.

In estimating the mortalities by comparison we must remember that until quite lately the Lady Bowen Hospital was the only institution of the kind in Southern Queensland; that patients were consequently often sent in from great distances in labour, and sometimes after the medical attendant or midwife had been unable to complete delivery. All this tends to increase maternal mortality, and even more so infant mortality.

Halliday Croon quotes 1 in 120 as the maternal mortality derived from a large number of confinements, and as ours shows 1 in 118, we are very near that mark. But I would draw your attention to the decrescendo rate of mortality which is shown in the three decades, viz., 1·54 per cent., ·97 per cent., and ·51 per cent.; the latter figures comparing well with that of most British and Continental maternities. The infantile rate is somewhat large, but if the facts as to distance be remembered, it is capable in part of easy explanation. There is, however, another factor at work in causing this somewhat large mortality. Many more cases here are in the hands of midwives than in the old country, and in most cases these midwives are self-taught and correspondingly ignorant, and they delay sending their patient in until the life of the child has been sacrificed and that of the mother endangered.

The decrease in the mortality observable during the three decades may be explained as due to several causes.

1. Better accommodation and improved means of access; easier travelling over better roads, and speedier by train and tram services.
2. The more general use of antiseptics and anæsthetics.
3. The more frequent use of artificial aids to delivery, *e.g.*, forceps, women not being allowed to exhaust themselves before instrumental aid is offered; of this more anon.

To summarise the causes of death in the 26 mothers we find septicæmia and its complications accounting for 10 deaths; eclampsia, three deaths; hæmorrhage, one case (adherent placenta), while in three cases of septicæmia, flooding doubtless predisposed to the fatal issue; placenta prævia, two; craniotomy, two; puerperal mania, one; pulmonary embolism, one; while of cases not directly connected with labour we have phthisis, acute nephritis, and acute rheumatism and pneumonia; accountable for one each, chronic diarrhœa for two, while one case is entered as dying from exhaustion after labour in 12 hours.

FORCEPS.

Delivery by forceps is recorded in 111 cases. Of these cases in the first decade ('64-'74) eight times out of 584 births.

'64-'74, 8 out of 584, *i.e.*, once in every 73 cases.
'75-'84, 31 „ 924, „ „ 29·8 „
'85-'93, 72 „ 1,559, „ „ 21.6 „

Thus we see that forceps were used nearly four times as often in the last decade as they were in the first. Only one maternal death is noted after the use of forceps—a case of septicæmia, which had resided in hospital six weeks prior to delivery. This result cannot be looked upon as otherwise than very satisfactory.

It will be interesting to note whether the more frequent use of the forceps has resulted in any increase in the mortality, maternal or infantile. The only maternal death occurred in 1888, but the prolonged residence in the hospital (a temporary one in Wharf-street) was the real cause of the fatal issue, as experience has shown us unmistakeably that cases which have remained for any length of time in hospital before delivery seldom make good recoveries, while out of the fatal cases no less than four had been resident in hospital prior to confinement for periods varying from four to ten weeks.

Nor is the infantile mortality increased through the more frequent use of the forceps, as the following tables show:—

FROM ALL CAUSES.

1864-74	Stillborn	33=1 in 18, 5·5 per cent.
„	Stillborn and died before leaving hosp.	39=1 in 15, 6·3 „
1875-84	Stillborn	44=1 in 21, 4·8 „
„	Stillborn and died before leaving hosp.	63=1 in 15, 6·3 „
1885-93	Stillborn	75=1 in 20, 5 „
„	Stillborn and died before leaving hosp.	94=1 in 16·5, 6 „

I have also taken the forceps cases separately, and find: 1864-74, two deaths out of eight cases=25 per cent.; 1875-84, 11 deaths out of 31 cases (but from this we must subtract four cases born putrid, one funis, and one breech, where death was not due to use of forceps) giving us five out of 31=16 per cent., 1885-93, 17 deaths out of 72 cases=23 per cent., and from these we subtract three cases born putrid, five funis, one eclampsia, and one premature, leaving seven deaths which may have been due directly or indirectly to the use of forceps, *i.e.*, 9·7 per cent.

INFANTILE MORTALITY.

Date.	Still-born.	Died in Hospital.	Mortality.	Forceps used.	Mortality of Forceps Cases.	Corrected Mortality
1864-74	33	6	39 1 in 15 6·5 per cent.	8	2	25 p. c.
1875-84	44	19	63 1 in 15 6·7 per cent.	31	11	16 p. c.
1885-93	75	19	94 1 in 16·5 6 per cent.	72	17	9·7 p. c.
1864.93	152	44	6·45	111	30	16·9

Version was performed 19 times with the low maternal mortality of two (both cases of eclampsia), and the high infantile one of 14 deaths; but of these a large proportion were funis presentations, which were dead before version was attempted.

Craniotomy was performed six times with a maternal mortality of two.

Induction Premature Labour, two cases—in one, mother died five days after of metritis; in the other, patient recovered, hemiplegic.

To summarize the abnormal presentations:—Breech and footling, 30 cases; transverse, 10; face and brow, 7; funis, 16.

Plural Births (twins), 36—two boys, 13; two girls, 15; boy and girl, 8.

Prolapsed Funis, 16 cases, 14 deaths. Forceps, 6 times; version, 4; craniotomy, 2; while four cases were allowed to terminate spontaneously.

The high mortality is owing in a large measure to the want of a house surgeon, as some time must necessarily elapse between the summons and the arrival of a visiting surgeon, even if that summons be a timely one, as a prolapsed funis does not bear much compression without the death of the child. Moreover, I need not point out that a prolapsed funis is usually only one part of a complicated labour, *e.g.*, out of the 16 there were six contracted pelves, one transverse presentation, one foot and hand, and one knee and elbow.

Eclampsia, 11 cases—8 mothers recovered; 3 died; 5 children recovered; 6 died.

Placenta Prævia, 6 cases—4 mothers recovered; 2 died; 2 children recovered; 4 died. Two of these cases died before delivery.

Hæmorrhages.—Ante-partum (placenta prævia), 6; post-partum, 12 (one death); secondary, 1 (no death).

Retained Placenta, 14, including hour-glass contractions and adherent placentas; one death from hæmorrhage due to adherent placenta.

Chorea Gravidarum, 1—recovery. Only 78 cases recorded in the whole domain of obstetric literature.—Lusk.

Puerperal Insanity, 10 cases with known mortality of 2.

I cannot refrain from quoting here a graphic description by the late Dr. Concannon of an exciting episode in connection with puerperal mania:—

"August 26, 1881.—Sent for at 12.15 a.m. to see

M. M., confined last week; found the matron had been obliged to go for the police, while the assistant was sent for me. All the patients had left their beds, and were huddled together in a state of panic. I found M. M. divested of all clothing, swinging Mrs. Kelly's baby by the leg. She, M. M., was in a state of acute puerperal mania. I took the infant from her and held her till the police arrived. She was very violent, and temporarily letting her go for a moment, she seized a kerosene lamp and threw it at me. Fortunately she did not set fire to any combustible material. On the constables' arrival I requested them to hold her, and sent for Dr. Bell, who kindly and promptly came to my assistance. I was informed that the maniac had broken several windows, and had attempted to cut the throat of Bridget W. with a piece of glass. I accompanied her to the Reception House."

Phlegmasia Albadolens, 3 cases.

Scarlet Fever, 3, all recovered. In one case rash appeared before delivery; child born dead with rash. Two contracted disease in the hospital after delivery and recovered.

Infantile Abnormalities.—Monstrosities, 3; talipes. 4; spina bifida, 2; hydrocephalus, 2; umbilical fœcal fistula and hæmorrhage, 1 (death); imperforate anus, 3—2 died, 1 recovered.

I hope that this dry array of figures has not worn out your patience; if not, I will, with your permission, indulge in a little comparative retrospect. First, I would glance at the subject of antiseptics. The systematic use of antiseptic injections is much more imperatively demanded in a maternity hospital than in private practice. It is now our practice to insist upon the nurses thoroughly cleansing their hands and nails, and immersing them in a solution of porros. sublimate (1 in 2,000) before examining a patient. Vaginal irrigations of warm sublimate lotion (1 in 4,000) are usually employed before delivery, especially if the patient has been in labour any length of time. Each physician has his own views upon the subject, and similar injections are less used after labour, except in operative cases or when the fœtus is decomposed, when they are usually resorted to. The same remark applies to intra-uterine irrigation during the puerperium should there be any febrile disturbances.

This year the profession in Europe, Great Britain and America are celebrating the jubilee of Semelweiss, or rather the jubilee of his treatment, for he was the father of antiseptic midwifery, though he was undoubtedly ignorant of bacteriology; and by his treatment he lowered the death rate in his Vienna maternity from about 16 per cent. to something under 1 per cent.

We, in our maternity, have also cause to revere his memory, for our mortality has gradually declined from 1·5 to ·5, and to antiseptics, doubtless, this is chiefly due. Our appliances for the use of antiseptics are better and more available, for in 1876 we find one of the physicians making a note in the records that an enema apparatus is much needed, and again later "brought specimen of enema apparatus for inspection of committee; available for both passages; not liable to get out of order, and very cheap."

The more frequent use of forceps has already been dealt with at length. Some of the older surgeons seem to have favoured what is now known as Ahlfeldt's principle, viz., that of leaving the placenta for some hours to come away of itself before attempting removal. The result does not seem to have been always happy.

For instance, note November, 1876:—"Shoulder presented. Dr. X. turned under chloroform at 6.15 a.m.; revisited hospital 7·45 a.m. Placenta has come away. Matron tells me patient has just recovered from a very collapsed condition; is still very weak; much loss." This patient died 16 days later.

Again, October, 1871: "Craniotomy 10.30 to 12 (noon). Afterbirth came away at 10 p.m." Woman died eight days later.

September, 1873: "Bridget B. confined of twins, both males—the first at 10 a.m., the second at 4 p.m., with forceps. 11 p.m.: Visit to see Bridget B., and removed afterbirth."

Beaucamp, in *British Medical Journal* (Epitome), January 21, 1893, publishes statistics of 500 labours conducted after Ahlfeldt's principle of leaving the placenta two hours' time to come away. He found that the average of flooding was high. In 163 cases flooding occurred, and in 102 cases the membranes were retained.

With our present ideas we should almost consider such cases as quoted above culpable. However, it is certain that the more immediate method is the safer. In the early days spoken of our predecessors were wont to take things more lightly than we could afford to do now. Witness the following extract:—"6 a.m.—Called to see Mrs. B. with funis and right hand presenting; turned and brought the child so as the head only remained, and as the child was dead, left it to the care of the matron so as to keep an appointment at the 17-mile Rocks. Another surgeon had to be called in to complete delivery some hours after. *Post-mortem* by Dr. X., November 9, 1882; re-opened body next day to shew Dr. Y. the viscera."

I do not quote the above extract with any view of holding our predecessors up to ridicule, but with the single purpose of contrasting these episodes with what would be the custom now-a-days.

Now and then some of the matter-of-fact records become really humorous, *e.g.*, "visited infant of Lizzie T.; advised her to be sprinkled with calomel. I imagine that the child is suffering from the sin of its father or mother, but cannot state positively which by candlelight." A side light is occasionally thrown upon the state of surgery, *e.g.*, 1876, child with cleft of soft palate: "I fear nothing can be done. An artificial palate might possibly be procured when it grows up, if it should do so."

The staff do not always seem to have had such ready assistance from the committee as one would have expected. We find repeated notes, dunning the committee to procure a feeding cup, a clinical thermometer (which it took 18 months to procure). Instruments were repeatedly asked for from 1880 onwards, and it was not till 1888 that they were procured—subscribed for by the staff, who contributed 15 guineas from their own pockets to supply the want.

A gynæcological department was added in 1890, but was shortlived, being closed by the committee on a frivolous pretext. It is sincerely to be hoped that this much-needed and much-asked-for addition may not be long delayed, as no maternity hospital can be considered complete if it has to leave the injuries of labour unremedied, or has to pass them on to another hospital.

I have now come to an end, and if these records prove to you that those of our predecessors and of ourourselves who have undertaken the anxious and laborious work of our maternity hospital have been faithful to their trust, and have relieved the perils and dangers of childbirth in a degree worthy of the present state of the science and art of obstetrics, I shall be content.

Drs. Bancroft and Thomson made some remarks on the paper, but owing to the lateness of the hour the discussion was postponed till next meeting.

Dr. Ure, of George-street, was proposed as a member of the Society.

The 76th general meeting was held on April 14 at 8.30 p.m. in the Courier Building.

Owing to several political meetings being held that night the attendance was small.

Present: Drs. Hardie (in the chair), J. Bancroft, Gibson, Little, Booth, Clowes and Love (Hon. Secretary).

The minutes of last meeting were read and confirmed.

Dr. Gibson showed for Dr. Hill, Simpson's Axis Traction Forceps and Basilyst.

Dr. Ure, of George-street, was elected a member.

Dr. Bancroft, in resuming the discussion on Dr. Love's paper, "Records of the Lady Bowen's Maternity Hospital," read at last meeting, said that the greater mortality in the earlier days was due to poor accommodation, long journeys over rough roads, and to the fact that the hospital in those days was more used for sending difficult cases to than as a routine resort for confinement. He had always opposed the plan of leaving the placenta for some hours to come away, which had been practised by several of his colleagues. With regard to general experiences he related a case of lithopædion, where the mother had gone three months over her time. After dilating the uterine orifice he was able to get craniotomy forceps on after drilling with perforator. The mass was quite hard, flesh absorbed, skin mummified, and the whole with a cretaceous deposit round it. Comment was made on several cases of hydrowhœa, one occurring as late as the seventh month.

Dr. Little said that he considered forceps statistics valueless. Many men used forceps, not for the sake of the patient, but merely to let themselves get away sooner. In most of these cases there was no risk and no trouble, but such cases should not count in forceps statistics. The cause of delay and the obstetrician himself were two very varying factors. Some patients, after having had chloroform and forceps used once, always wished to have them, whether necessary or not. He had met men with wonderful skill and tact in using forceps, which others, he found, could never acquire. His chief objection to the dorsal position was the difficulty in supporting the perinæum.

Dr. Clowes enquired whether it was the experience of members that hæmorrhage was more common after the use of chloroform.

Dr. Bancroft had not found chloroform conduce to hæmorrhage. If it occurred he was in the habit of pouring cold water from a ewer onto the patient's abdomen. He kept his patient quiet on her back. He mentioned that when a catheter had been forgotten and was required he had extemporized one from a piece of passion-fruit stem by cleaving the tube at the nodes by passing a piece of wire through. A piece of waxed paper rolled on a pencil would also do. He had used both without the patient being any the wiser. He exhibited a German trephine for craniotomy by which a succession of circles of bone could be removed and the base of the skull thoroughly broken up; also stout blunt forceps for nipping off the projecting segments of bone, so that the fingers could be passed into the cranial cavity of the fœtus; also a repositor for inversion of uterus, made of bamboo, which he had successfully used in a case of 12 months' standing.

Dr. Hardie said that in connection with the paper read by Dr. Love at the previous meeting, bearing on the statistics of our local maternity hospital, two points were of special importance. In the first place he showed, by dividing the last 29 or practically 30 years into three decimal periods, that the maternal mortality, which was 1 in 65 the first period and 1 in 102 the second, is in the last decade only 1 in 195. In other words, 20 years ago it was about three times greater than at the present day. Moreover, it is gratifying to know that in the face of more adverse climatic conditions the mortality here at the present time compares favourably with that of most lying-in hospitals in the old country. The second point he should like to notice is that although the forceps is now used very much more frequently than formally, the infantile mortality remains practically the same, showing at least that the use of the forceps has not been attended by a higher death rate amongst infants. As regards the use of the forceps, he drew drew attention to a paper read before this Society two years ago, in which it was pointed out that where it was necessary to apply the forceps when the head is high up and before retraction of the cervix, and more especially if the chief obstruction lies not in the bony pelvis but in the cervix itself, it is advisable to extract not during, but between, the pains. In cases of the kind mentioned—and in his experience they are far from uncommon—the sphincter action of the cervix during a pain is equal to the propelling power of the muscular body of the uterus, and if traction be used at that time the cervix will probably give way, and as a result we have a torn cervix. He asked whether it was thought advisable to stitch a cervix at the time of rupture; opinions were apparently divided, a paper in the American *Journal of Obstetrics* stating that it was inadvisable in most cases.

Dr. Love stated that in the hot months he thought chloroform more likely to be followed by hæmorrhage, especially after instrumental interference. With regard to the perinæum, he had found lateral incisions very valuable in cases where there was great distension. In using the forceps he often brought the head onto the perinæum, unlocked the forceps, and allowed nature to complete delivery, especially where there was a tendency to tear, notwithstanding Spiegelberg's advice to the contrary. He thanked the members for the kind reception his paper had met with at their hands.

QUEENSLAND MEDICAL ASSOCIATION.

◆

The monthly general meeting was held in Brisbane on April 13, when there were present: The Hon. W. F. Taylor (in the chair), Drs. Marks, Jackson, Connolly, Hirschfeld, Brockway, Thos. L. Bancroft and Peter Bancroft (Hon. Secretary).

Living Exhibits.

Dr. Taylor.—Papillo-retinitis with flame-shaped hæmorrhages.

Dr. Jackson.—(*a*) Paralysis of serratus magnus, on the right side, in a muscular young man, by occupation a miner. With the forward extension of the arms the scapula stands out very prominently from the ribs, the rhomboids being very distinct. (*b*) Radical cure of hernia.

Dr. Peter Bancroft.—Chyluria in a boy aged nine; filariæ very numerous. His brother, aged six, suffers similarly.

Dr. Thos. L. Bancroft gave a microscopic demonstration of the bodies in carcinomata, which have been considered by Dr. Armand Ruffer and others to be parasitic protozoa. He agreed with what Professor Delépine had said in his paper in the *British Medical Journal*, September 24, 1892. Dr. Delépine concluded his paper by saying:—"The evidences of multiplication which are adduced are such that they might easily be produced by endogenous multiplication of cells and nuclei and degenerative changes. I do not say that the bodies in question are not parasites; I only say that certain endogenous productions are much like them, and that no one has proved that these bodies have a life independent of that of the cell. Nobody has shown in them evidences of those stages of development which have been shown to exist in other parasitic protozoa, and are so characteristic in coccidia. I therefore consider that even with the support of such an eminent authority as Metschnikoff neither Soudakewitch nor Ruffer has any more right for the present to call the bodies, to which they have again attracted attention, either protozoa or parasites than those who had described the same or similar bodies previously."

DR. **BANCROFT** showed a variety of sporozoa from the lower animals; also bodies like coccidia in the epithelial cells from the bladder of apparently healthy rats; also the infusorian parasite hæmatomonas or herpetemonas of the rats' blood, first discovered by the late Dr. Lewis, of Calcutta.

DR. **CONNOLLY** read a paper on a type of fever observed after the subsidence of the late floods.

DRS. **TAYLOR, MARKS, JACKSON**, and **HIRSCHFELD** joined in the discussion.

DR. **PETER BANCROFT** read notes of a death during the administration of chloroform in the Hospital for Sick Children.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

THE 105th General Meeting of the Branch was held in the Royal Society's Room, Sydney, on Friday, 7th April, 1893.

Present: Dr. Ralph Worrall, President, in the chair; Drs. Fiaschi, Coutie, Thring, W. Chisholm, Huxtable, Crago, Clubbe, MacSwinney, Jenkins, Megginson, Rennie, Barkas, Thos. Dixson, O'Reilly, Lyon, Money, Wright, Bennett, Cohen, Steel, A. Jarvie Hood, Clay, Roth, Edwards, Sheldon, Quaife, G. A. Marshall, Jas. Dick, Norrie, West, McKay, Morgan, Martin, A. Parker, Abbott, Langhorne, Collins, Shewen, Bucknell, Pilkington, and The Hon. Dr. Creed, M.L.C. Visitors: Drs. Huxtable and Harbison.

The **PRESIDENT** (Dr. Ralph Worrall) thanked the members for his election as President for the ensuing year.

The minutes of the previous General Meeting were read and confirmed.

The **PRESIDENT** announced the election of Drs. C. J. Martin, Taylor, Fullerton, Hetherington, and Sutherland.

A letter from Dr. Phillipson relative to the appointment of one or more delegates to the Annual Meeting of the British Medical Association was read, and Dr. E. Fairfax Ross was unanimously elected as the representative from this Branch.

The **HON. DR. CREED**, M.L.C. (retiring President) delivered the following

PRESIDENTIAL ADDRESS.

As retiring President it is my first and most pleasing duty to congratulate the Branch on its continued and increasing prosperity, and on the useful work which has been accomplished. At the termination of the past year the number of members was 173, of whom 23 were elected during its currency. None of our comrades have died, but one has resigned and three have been removed from the roll in accordance with the rule which necessitates this course being taken when a member neglects to pay his subscription for two consecutive years.

The balance sheet submitted by the Honorary Treasurer, Dr. Crago, is most satisfactory, as it shows a steady increase of the accumulated funds, which will enable the Association to further fulfil the purpose of its foundation by aiding original research. It is proposed to do this in the first instance by a vote in assistance of an inquiry by Dr. Martin, of the Sydney University, into the pathology of snake poisoning. The chemistry of the venom having been very ably worked out by that gentleman and Mr. McGarvie Smith, and reported to the Royal Society of New South Wales in a paper read on August 3, 1892.

The subjects brought forward for discussion at our meetings have been of more than usual interest. The papers read were as follows:—

Notes on a case of Polypus in a Male Urethra ..	Dr. McMurray.
Concluding notes on a case of Gastro Enterostomy in which Senn's Plates were used	Mr. Hankins.
Notes on a case of Malignant Growth	Dr. Rennie.
Some unsuccessful Brain Cases	Dr. Twynam.
Sewer Ventilation	Dr. Kendall.
Notes on Peculiar Conditions of the Hair	Dr. McMurray.
Notes on a case of Hæmorrhage into the Pericardium, the result of Rupture of the Left Coronary Artery, due to Atheroma of Walls of that Vessel	Dr. Jenkins.
Pennyroyal as an Ecbolic	Dr. Martin.
Notes on a case of Aneurism of the first and second parts of the Aortic Arch, with Perforation of the Sternum, &c.	Dr. Jenkins.
Notes on a case of Wolf's Method of Transplantation of Skin	Dr. Newmarch.
Notes on a case of Suppurating Dermoid of the Ovary, with Hysterectomy and removal of the Veriform appendix..	Dr. Foreman.
Notes on a case of Poisoning by Nitro Benzole ..	Dr. Jamieson.
Notes on a case of Raynaud's Disease	Dr. Jenkins.
Notes on a case of Simulated Diabetes	Dr. Jenkins.
Notes on Ptomaine Poisoning..	Dr. Crago.
Notes on a case of Embolism of both Central Arteries of the Retina	Dr. Pockley.
Notes on a case of Gunshot Wound	Mr. Hankins.
Notes on a case of Ovariotomy	Dr. Chambers.
Notes on a case of Encysted Vesical Calculus ..	
Perforating Ulcer of the Septum Narium	Dr. Power.
Notes on an obscure case of Apex Pneumonia ..	Dr. Crago.

There were also presented the following interesting exhibits:—

Specimen of Malignant Growth	Dr. Rennie.
Case of Cretinism	Dr. Clubbe.
Models, &c., of Sewer Ventilation	Dr. Kendall.
A Patient suffering from Lupus Erythematosus ..	Dr. Newmarch.
An Apparatus for Fractured Spine	Dr. Newmarch.
A pathological specimen of Rupture of the Aorta, &c.	Dr. Jamieson.
A Patient suffering from an affection of the Knee Joint	Dr. Kendall.
Specimen of Gumma of the Brain	Dr. Jenkins.
A Patient showing the good effect of a Plastic Operation for making new Nose	Dr. Purser for Dr. McCormick
A Female Patient cured of Incontinence of Urine by Hypnotic Suggestion	Dr. Arthur.
A Stone from a female bladder	Dr. Furnival.
A recently expelled Fœtus, with membranes, &c., complete	Dr. Ellis.
A specimen of Aneurism of the Arch of the Aorta	Dr. Jenkins.
A Patient suffering from Bradycardia	Dr. Rennie.
Four Patients Hypnotized at the Meeting	Dr. Creed.
A Patient suffering from Dyspnœa	Dr. McSwinney
A case of Nævus Pilosis	Dr. McMurray.
New form of Electric Light	Dr. Edwards.

The relations of the medical profession to the friendly societies in this colony is as ever a matter of the highest interest, not only to ourselves but to the public; but I regret to say that no advance has been made in placing them on a better footing than when the subject was ably and trenchantly dealt with by my predecessor, Dr. Scot Skirving, in his address of last year. All the grievances then stated still exist, and, I fear, will continue until an organized effort is made to bring about reform. The facts relating to this substantial wrong have been so fairly stated in a published paper by Mr. Bruck that I cannot place them more forcibly before you than by quoting his words :—

"A large proportion of the population of the suburbs belong to friendly societies, the members of which include many well-to-do people, such as shopkeepers, manufacturers, Members of Parliament, officials and others, who joined the lodges when they were in straightened circumstances; and this, of course, restricts independent practice very considerably. For example, an important suburb of Sydney on the western shores of Darling Harbour, with a population of 24,000, has only eight practitioners in active practice, or one to every 3,000 persons, but then two-thirds of the total population belong to friendly societies; the Friendly Societies' Dispensary in that suburb alone has over 2,300 members, consisting, with their wives and children, of fully 10,000 persons, which are attended to by two medical men who divide £600 per annum, equal to 1s. 2⅖d. per head a year, for which magnificent sum the two medical officers have not only to attend them in sickness and accident, but they also have to perform minor operations, administer chloroform, and extract teeth. Another lodge in the same suburb, with about 500 members, pays 15s. per member a year to their medical officer, who, however, is not allowed to charge the usual extra fee of one guinea for midwifery cases, as these have to be attended to free of charge! This state of affairs exists all over Australasia, though not to such an unjustifiable extent; but even in sparsely-populated Western Australia there are lodges, the medical officers of which are giving medical attendance *and supplying medicines* to members and their families at the rate of £1 per annum. The remuneration of club doctors in the larger towns varies from 12s. 6d. to £1 per member a year, for which amount the member's family has also, of course, to be attended to. In the smaller country towns the remuneration as a rule is 26s. per member a year, which includes medicines, bottles, and teeth extracting, and when the medicines are to be renewed the medical attendant has almost invariably to supply fresh bottles, which form a considerable item in the expenditure of a country lodge doctor; obstetric cases, as a rule, are extra, and the usual club fee for them is one guinea, which includes the after attendance. And yet, when such an undesirable and dependent position is advertised there is no lack of applicants. Quite recently, when tenders were invited for attending the exacting members of three clubs in a town 70 miles from Sydney, there were not less than 42 applicants, and 22 tenders were actually sent in; some of the tenderers, cap in hand, personally soliciting the support of members of the committee, who in country towns generally consist of storekeepers, publicans, butchers, blacksmiths, and other tradespeople; the previous medical attendant of these very lodges found that, after deducting the cost of medicines and bottles supplied, he received 1s. 10d. for every consultation or visit within 10 miles, including mileage, during his last 12 months."

This deplorable state of things is unjust, not only to the practitioner who, on the termination of a prolonged and expensive education, has become a veritable slave to most exacting and inconsiderate masters, but to the members of these societies themselves, who for the inadequate payment made can scarcely hope to get other than the most perfunctory attendance in sickness from a man who, unless possessed of the disposition of an angel, cannot help being soured and rendered cynical by the injustice of his relations with them, and whose professional intercourse with such patients must be devoid of that kindly sympathy so essential to successful treatment. The cause is that the societies, acting on what are often erroneously considered "true commercial principles," engage the practitioner who professes his willingness to render the largest amount of service for the least remuneration. We can hardly expect that employers of this class will realize that it is really to their interest to ascertain the highest amount they can afford to pay to their medical officer, consonant with other engagements, and then to choose the practitioner of the highest professional character and ability who is willing to enter into an engagement with them. Failing the realization of this, I fear Utopian, possibility, the only reasonably probable chance for reform is for medical men to make such mutual arrangements, as will render the undercutting of reckless practitioners nugatory so far as advancing their selfish personal object, which can only be the attainment of private practice in the district where the society they engage with is situated, is concerned. Roughly speaking, this might perhaps be accomplished by the creation of a fund, from which a practitioner, who had been unfairly ousted from his position with a society because some other medical man has been so lost to decency as to proffer to perform the duties for less remuneration, might be subsidized to such an extent as would enable him to continue his practice in the district in spite of his lessened income from the loss of the salary he formerly received. In this way the newcomer could hardly hope to do much private practice, and from the inadequate pay of the society he would quickly be obliged to leave the field. By this means, I think, much might be done to raise the position of the medical officers of benefit societies, and to remove some portion of the most crying evils under which they suffer.

It is much to be regretted that no arrangement has yet been made between the colonies for the establishment of a well-considered system of federal quarantine. Not that I think the cost would be lessened by its adoption, but the efficiency of the preventive sanitary cordon with which it is prudent to surround new countries would be greatly increased. At present there is no uniformity in the treatment of vessels arriving at the various ports, as in some instances the medical inspection has been made by a layman. The expense to which the various governments have been put during recent years by the introduction of overlooked smallpox has been immense, and should act as a warning for the future. A proper system of this character was strongly advocated by the Hon. Dr. Mackellar when Medical Adviser to the New South Wales Government, and it formed the principal recommendation of the Intercolonial Sanitary Conference, which met in this city in September, 1884, of which that gentleman was the President.

I have still to tell the same lamentable story with regard to vaccination, and believe I am justified in saying that in no country in the world which has any just claim to be considered civilized is there such utter disregard of this inestimable prophylactic against variola. As showing how much it is neglected I need only say that for the year 1891 the successful cases of vaccination bore but the proportion of 3·96 per cent. to the births of that year, and that it is certain that even some of these were performed on children born in previous ones. The fact that on the occasion of an outbreak of smallpox in 1881, the proportion of successful vaccinations to the births in that year was 211·21 per mille proves that there is not any widespread objection to the operation, but that unless the danger is imminent the parents are careless. I need not, I am sure, urge upon you the necessity of pressing the subject upon the attention of your patients, and of pointing out to them that by delaying vaccination until variola appears they may, from press of numbers and the great demand for lymph, expose their children to risks which would not arise at a time of less urgency.

A humane and proper step was taken in 1890, by passing a law for the segregation of unfortunate individuals suffering from leprosy, for though it is not easily communicable from one to another, its effects are so dire to the persons who are so unhappy as to contract it, and it is so terribly dreaded by the people generally, that without provision were made for their support and care it is certain that their sufferings would be immeasureably increased. Under the provisions of this Act there are at present 32 persons in the leper quarters at Little Bay, of whom 11 are of European descent, two being boys under 16 years of age. Of the rest 19 are Chinese, one Malay, and one Kanaka.

A notable event of the past year has been the meeting of the third session of the Australasian Medical Congress. It was a most successful gathering, subjects of much interest having been brought forward, giving rise to discussion of an extremely useful type. Public attention was earnestly aroused by the proceedings, and Sir George Dibbs, acting on behalf of the New South Wales Government, gave very substantial support by a direct pecuniary grant, and also by directing the printing of the volume of the transactions at the Government Printing Office. The Premier supported his action by acknowledging the services rendered to Australia by this meeting of practitioners for the purpose of discussing medical subjects in the interest of the public health. The number of subscribing members was greater than on any previous occasion, and the opening address was delivered by the President, Dr. Sydney Jones, on September 26, 1892, to a very distinguished audience in the great hall of the Sydney University.

The very general adoption of Dr. Mueller's treatment of snakebite poisoning by the hypodermic injection of strychnia is, I submit, most satisfactory, as this remedy affords a means of subduing very grave symptoms in cases in which practitioners who have had to treat them have, hitherto, felt almost impotent for good. Sir Joseph Fayrer, as President of the Medical Board for India, has recommended its adoption in that country, and it has already been used most successfully in several cases of bites by Indian snakes of a deadly character, reports in reference to which have been published in *The Australasian Medical Gazette* and some of the English medical journals. Further information from that country will be looked for with much interest.

One phase of the subject which I think I shall do well to bring under your notice, as it is one which has produced some controversy amongst the members of our profession, is the question of the propriety and safety of the use of this treatment by others than medical men. Undoubtedly in cases where the services of a doctor are available within a reasonable time, say an hour, after the infliction of the bite, it should only be used by a properly-trained practitioner; but delay is so fraught with danger that I am strongly of opinion that it had better be used promptly by a layman, if the gravity of the symptoms demand it, than be unduly delayed. Late experience seems to show that if the poison is left uncounteracted in the system it produces such pathological changes in the excretory organs—notably the kidneys as a consequence of their deprivation of nerve force through the action of the venom on the nerve centres—that they cease to act; consequently in what at first are apparently mild cases death occurs at a later time from the retention of the poison in the system through its non-elimination. When there is this peril from delay I am certainly of opinion it is better to have the remedy administered by any intelligent person than run the risk of waiting some hours for a medical man.

The overcrowding of the profession in Australia is a matter of eminent interest to the Association, for its wellbeing is dependent on the prosperity of its members. It therefore becomes my duty as retiring President to call the attention of the professional journals of the older countries, to the fallaciousness of the hopes of great pecuniary success which many practitioners entertain, when leaving Europe or America with the idea of practising medicine in Australia. The subject has been so ably dealt with by Mr. Ludwig Bruck in his admirable article published in the March number of *The Australasian Medical Gazette*, that it has much lessened my task in this particular, and I shall do no more than emphasize the assertion I have so often made that the prospects of lucrative practice in Australia by strangers coming here are in the highest degree problematical, and support my statement by quoting a few figures from the above-mentioned paper, which says that "the total number of registered practitioners recorded in Australasia, excluding Fiji and other South Sea Islands, is 2,410, of whom 691 resided in New South Wales, 204 in Queensland, 181 in South Australia, 812 in Victoria, and 40 in Western Australia, or a total of 1,928 on the Australian Continent; in Tasmania there were 93 practitioners, and in New Zealand 389.

"Of these there are 291, or 12·07 per cent., who have graduated at Colonial Universities, viz., 222 at the Medical School of the University of Melbourne (opened in 1862), 47 at that of Sydney (opened in 1883), nine at the one in Adelaide (opened in 1885), and 13 at the University of Otago, N.Z. Those practitioners who have taken colonial degrees *ad eundum gradum* are, of course, not included. It must be assumed that these 291 colonial graduates are almost entirely natives of these colonies, and as there are quite as many Australians and New Zealanders who have pursued their studies in the old country and taken their degrees at some University in Great Britain, it follows that fully 25 per cent. of all colonial practitioners must be natives of Australia and New Zealand. There are nine ladies amongst the legally qualified practitioners, viz., five in Victoria, two in New South Wales, one in Queensland, and one in South Australia, four of them being the possessors of Australian degrees.

"In proportion to the population we find that in New South Wales there is one medical practitioner to every 1,708 persons; in Queensland one to every 2,034; in South Australia one to every 1,796; in Victoria one to every 1,441; in Western Australia one to every 1,375; and on the whole Australian Continent one to every 1,631 persons. In Tasmania there is one to every 1,666; in New Zealand one to every 1,799, and throughout Australasia one practitioner to every 1,660 persons. We must, however, not overlook the fact that there are a very considerable number of unqualified persons, many of whom have had no medical training whatsoever, who practice medicine for gain in these colonies.

"In New South Wales alone, which has been styled 'The Paradise of Quacks,' we have upwards of 200 of such persons, or one to three in proportion to registered medical men in active practice. Melbourne and suburbs can boast of 14 so-called 'Chinese doctors,' who reside within the boundaries of 'Greater Melbourne.' These irregular medical practitioners of all nationalities are found in every part of Australia, though nowhere in such astonishing numbers as in New South Wales.

"Of capital cities of Australasia: Sydney proper has

139 medical men, or one to every 809 inhabitants; her suburbs support 112 medical men, or one to every 2,567 inhabitants; and the metropolis as a whole has 251 practitioners, or one to every 1,594 persons. Brisbane has 42 practitioners, or one to every 1,335 persons; its suburbs 18 medical men, or one to every 2,088 persons; and Brisbane with suburbs combined, 60 medical men, or one to every 1,561 persons. Adelaide has 43 medical men, or one to every 889 inhabitants; the suburbs 23, or one to 2,478 persons; and Adelaide with suburbs, 66 practitioners, or one to every 1,438 inhabitants. Melbourne has 110 medical men, or one to 659 persons; the suburbs 180, or one to every 2,375 persons; and Greater Melbourne 290 medical men, or one to every 1,724 inhabitants. Perth, the capital city of Western Australia, has 12 practitioners, or one to every 708 of its inhabitants. Hobart, the capital of Tasmania, has 29 practitioners, or one to every 1,172 persons, and Launceston, the principal city in the north of the little island, has 13 medical men, or one to every 1,692 persons. Wellington, the capital of New Zealand, supports 30 medical men, or one to every 1,133 persons, and Auckland, the former capital, has 40 practitioners, or one to every 1,300 inhabitants."

I had hoped to be able to congratulate the Association on the passage of the Medical Bill, which is now before the Legislative Assembly, having been sent to that Chamber on its passing the Legislative Council in December, 1891. That the principle of the bill is cordially accepted by the Lower House is shown by the fact that its second reading was ordered by a division of 48 ayes to 11 noes. The pressure of business more directly urgent to the Government has been the reason of the delay in the consideration of this, to the public, highly important measure in committee of the whole House. When it takes place, it is proposed that certain amendments shall be made in the bill which will place the appointment of four of the 10 members of the Council in the hands of the Government, two will be nominated by the Senate of the University, whilst the remaining four will be elected by the registered medical practitioners of the colony. As the bill now is, the Council would have been appointed in equal proportion by the Government and the University. The other important amendment is one which leaves it in the power of the Council to retain the name of a medical practitioner on the register, even though he has been removed from the rolls of the licensing bodies from whom he obtained his diplomas. This has been proposed to meet those extremely rare cases in which the name of the practitioner has been removed because he has contravened the rules of his college, which he swore to obey, by advertising in a manner which might not, in the non-professional sense, be considered indecent. In all cases of removal of a name from the register by the Medical Council, provision is made for appeal to the Supreme Court by the person removed; and this, I think, is an advisable step, as it will avoid even the suspicion of unjustifiable harshness on the part of that body. It would seem unnecessary after the many exposures of the misdeeds of the numerous quacks, who continue to carry on their misdeeds unchecked in our midst, to again call attention to the urgent necessity for the passing of the bill into law; yet it may not be out of place to say, that from inquiries which have from time to time been made by the detective police, it is found that cheating quacks, who had been driven out of the colony by their exposure before the select committees of the Legislative Council, have returned to Sydney under freshly-assumed names, and are carrying on their nefarious practises with considerable success to themselves and very serious injury (not only moral and physical, but pecuniary) to suffering and unsuspecting members of the public. The newest phase of this form of imposition has been the establishment of a pseudo-institution for the cure of inebriety, the moving spirit of which is a man whose malpractices have been exposed from time to time, and in relation to whom the sworn evidence of an employè has been published, stating that when any of the people consulting the quack firm, of which he was member, made any apparent progress towards regaining their health (it can hardly be supposed as a consequence of the advice received), he was in the habit of administering drugs to them which created bad symptoms and caused them to continue to be a source of profit.

The advertisements of these people are inserted daily in newspapers, the conductors of which assume themselves to be the leaders of public thought in the colony, and are the means by which many suffering people are robbed of their hard-earned money in a vain pursuit of health from a source which is malevolently impotent for the purpose.

The disposal of the dead must always be a subject of great public interest. No thinking man having a knowledge of sanitation will doubt that the burial of the bodies of deceased persons is a peril to the health of those surviving, proportionate, of course, to the distance of the cemetery from habitations, the nature of its soil, the system of its drainage and the regulations under which burials take place. The pecuniary loss to the community by the devotion of valuable land for cemeteries in the neighbourhood of populous places is of considerable moment. A return recently made to the Parliament of New South Wales shows that the bare value of the land, irrespective of the money expended to make it suitable for the reception of the dead, now dedicated for cemeteries in and near Sydney, is £350,000. In addition it has been found necessary to devote to this use more land at the National Park, where it is decided to create a new cemetery for the suburbs on the Illawarra line. It is estimated by the officers under whose supervision the work will have to be done, that it will be necessary to expend at least £11,000 before a single body is deposited in it. The danger to health and this cost to the community would be avoided, as regards the first absolutely, and as to the second almost entirely, by the adoption of cremation. The £11,000 to be expended for the new cemetery would erect three crematoria, conveniently situated in different suburbs of the city, with sufficient accommodation to dispose of the bodies of all persons dying in our midst, were the people sufficiently educated by custom in this direction to allow their reason to overrule sentimental prejudice. I maintain, and I think you will agree with me, that true sentiment would be better conserved by cremation than by burial. By the first the body of a loved friend is quickly converted by the most effective process to a few pure white ashes, whose offensive personality is destroyed, and which can be preserved without risk of desecration. If the second is made use of, we know that in a short space of time the adored object becomes a fœtid, festering mass of corruption, repugnant in the highest degree to those who but recently loved it most, and that the best that can be said is, that it is out of sight and out of thought. When a corpse is buried, there is always the doubt that the tomb will be but temporary, and that public exigency may, in the future, necessitate the removal of the bones, generally without identification, to some fresh resting place, probably common to thousands. It would be too much to expect that cremation will be quickly adopted by the majority of our people, but were the necessary apparatus available, a very large number would make use of it, and their example would quickly induce others to adopt it too. To show how quickly the system is spreading, even in a conservative community, I may quote from the report of the Cremation Society of England, it says "that the number of cremations were in the first year, 1885, three; in 1886, ten; in 1887, thirteen; in 1888, twenty-eight; in 1889, forty-six; in 1890, fifty-four; in 1891, ninety-nine; and in 1892, one hundred and four."

The only objection that can be advanced against cremation with any show of reason is that when a body is burnt no fresh examination can be made should subsequent doubt arise as to the cause of death. Under a properly regulated system for the registration of deaths such a circumstance would not arise, for no corpse should be disposed of until the authorities have received indisputable proof that the death had not arisen as the result of crime. The provisions formulated in the bill for the regulation of cremation, which was introduced by me in the Legislative Council and twice passed by that Chamber, met this in a satisfactory manner. As a proof of this I may say that *The Lancet*, which had previously always opposed cremation on this ground, admitted that its objections had been fully met, and expressed the wish that a law on similar lines should be added to the English statutes. I, therefore, with confidence appeal to the members of the Branch to assist me in pressing upon the Government the advantages of cremation, both sanitary and economic, and the propriety of such provision being made as will enable those who desire to do so, to cremate the bodies of their deceased friends. When the vast cost of the system of burial to the community is considered, the expenditure of the small sum of, say £3,000, to enable those desiring, to burn their dead, is manifestly but a reasonable request, especially when it is considered that every disposal of a body by fire is a sanitary gain to all surviving.

The utility of hypnotism in the practice of medicine is now so frequently a subject of discussion that I feel it right to address a few words to you on the subject. In Europe the use of this strange force is as strongly condemned by some as it is advocated by others. The one party, whilst acknowledging the genuineness of many of the strange psychical phenomena which are exhibited by subjects under its influence, deny that it is of any therapeutic use; the other side assert that it is the remedy for almost every ailment. I have made during the late year very considerable use of hypnotism in my practice, and I am thoroughly convinced that as an adjunct to the ordinary treatment of disease it is of the highest value. I do not assert it will directly bring about recovery in organic disease, but I am strongly of opinion that many such cases will be much aided towards convalescence by the nervous rest which hypnotic suggestion affords, and the consequent absence of apprehension as to danger in the patient. In functional diseases, especially those of a neurotic type, its good effect is often marvellous. In the treatment of dipsomania I have used it, and am using it frequently, and have achieved such immediately good results as are attainable in no other way of which I have any knowledge. Were it of no utility in any other disease its remedial effect in this class of cases would make it the source of the highest good to many men worthy in every respect except their really maniacal craving for alcohol.

In conclusion, I can only express my gratitude to the members of the Branch for the very exceptional honour they conferred upon me when electing me a second time as their President, and to thank them all for their invariably kind and courteous appreciation of my conduct of the duties of that position during the past year.

Dr. Fiaschi said he had listened with very great interest to the address, and the members would agree with him that Dr. Creed had brought his political mind to bear upon the questions dealt with, especially the matters relating to the Friendly Societies and the disposal of the dead. He (Dr. Fiaschi) had very much pleasure in proposing a hearty vote of thanks to Dr. Creed for his very able and interesting address. Carried.

Dr. Creed acknowledged the vote of thanks.

Dr. MacSwinney exhibited a blighted fœtus, and explained the specimen.

The **President** (Dr. Worrall) said the members were much obliged to Dr. MacSwinney for having taken the trouble to exhibit the specimen. He (Dr. Worrall) thought the specimen was a case of twin pregnancy.

Dr. Rennie read some notes on a "Case of Primary Cancer of the Kidney," and exhibited the specimen.

The **Hon Secretary** (Dr. E. J. Jenkins) read the following paper for Dr. Davenport Parry, of Murrumburrah.

A CASE OF LACERATION OF VAGINA BY INDIRECT VIOLENCE.

By Ll. Davenport Parry, Murrumburrah.

◆

NOTES OF THE CASE.

On January 11, 1893, I was sent for at 10 p.m. to see a little girl, *ætat* 9 years, daughter of a farmer living seven miles from this town. The father, who came for me, informed me that the child had fallen from the roof of an outhouse at about 5 p.m. that day, and appeared to have injured herself internally, as she had great pain in her abdomen and blood was issuing in considerable quantity from her genitals. He could give no particulars to guide me as to the exact nature of the injury, as he stated that no one had witnessed the accident, and the girl was too ill to bear questioning.

I at once accompanied him to his home, where I found the girl lying on a bed, completely blanched, with an anxious expression, a barely perceptible radial pulse, and the bedclothes and mattress beneath her saturated with blood. When asked to place her hand where she felt pain, she placed it just below and to the right of the umbilicus. On examining the genitals I found no marks of external violence, but a stream of blood was issuing from the vagina; the hymen, which was semi-lunar in shape, was intact. On introducing a finger (previously rendered aseptic) the vagina was found occupied by a blood clot, while at the upper part of the posterior wall there was a rent large enough to admit the tip of the finger.

Having no assistance at hand, and knowing how readily these wounds often heal in children, I decided not to attempt to introduce a stitch, but after removal of the blood clot, carefully packed the vagina with iodoform gauze, securing it further with a pad and T bandage. Having ordered a mixture containing extractum hamamelidis liquidum and acidum sulphuricum aromaticum, and given strict injunctions regarding quiet, rest in the recumbent posture, &c., I left her for the night.

Throughout the next day all went well, and on January 13 at 11 a.m., *i.e.*, 36 hours after first seeing her, I removed the tampon, only slight oozing following its removal. The child was then looking much better;

felt no pain, and there were no symptoms of internal hæmorrhage or peritonitis. The recumbent posture was maintained for seven days longer, the vagina being daily washed out with a saturated solution of boric acid, and the child made an uninterrupted recovery.

Remarks.—As these injuries are generally—in "Heath's Surgical Dictionary" it is stated *always*—the result of direct violence, before giving credence to the father's account of the occurrence I carefully examined the scene of the accident, and have since got the child, who is very intelligent, to show me where and how it occurred. It appears she had climbed up a small ladder placed against the hen house in order to look through an aperture in the roof whether any eggs were inside. While leaning sideways over the ladder it slipped, and she fell a height of about five feet flat onto the ground face downwards, striking the middle of her abdomen on a round log six inches in diameter and one foot in length. She felt a sharp pain in the umbilical region and "as if something moved in her privates inside." Placing her hand between her legs, she withdrew it covered with blood, and forthwith ran into the house to her mother, who at once laid her on a bed. The father and brothers being away harvesting, there was none to go for aid till their return at 9 p.m., when I was sent for and reached the house at 11 p.m., *i.e.*, six hours after the accident happened.

From careful inspection of the ground, the ladder and roof of the outhouse, from inquiries made of the child and her mother, and from the examination of the genital organs, I am satisfied that nothing penetrated the vagina from without, and therefore venture to publish the case on account of its medico-legal interest, there being, so far as I can find, very few similar cases recorded. (In the *British Medical Journal*, September 17, 1892, is the only case I remember noticing for several years.)

The President then called upon Dr. Huxtable to move his resolution with reference to the establishment of a library in connection with the Branch.

Dr. Huxtable said, in moving this resolution, that a library had been established in connection with the Home Association which had now become a very valuable adjunct, and in it the Branch had a precedent for the action now about to be taken. In Brisbane and Adelaide libraries had been established in connection with the medical societies, and he (Dr. Huxtable) thought that this Branch could not do better than set aside a sum of money for the purpose of starting a library from the accumulated funds of the Branch. Although a portion of the surplus had already been voted for the purpose of enabling Dr. Martin to make certain experiments in snakebite, still he thought a further sum of, say, £100 might very well be voted for the library. In Sydney there are only two medical libraries, the one at the University is too far out of town for general use, and the one in connection with the Royal Society is incomplete. The great difficulty would be the housing of the library; the Committee would have to make inquiries as to this matter. No doubt the Royal Society would allow a bookcase to be placed in this room, although it is very much overcrowded. He (Dr. Huxtable) would move: "That the sum of £100 be set aside from the funds of the Branch for the purpose of establishing a clinical medical library, and that the Council, with power to add to their number, form a committee to formulate a scheme for establishing such library."

Dr. McKay seconded the resolution, and said that since the last meeting of the Branch he had taken the trouble to examine the libraries and had found that they were of very little use to the general practitioner. Some years ago there was a good library in Sydney, but it was not now available. It would be useless to vote only £100 for the purpose of establishing a library, it would be necessary to vote £50 per annum to keep it up.

The Hon. Dr. Creed, M.L.C., said he had much pleasure in supporting the resolution. It was one of the ways in which the Branch funds could be legitimately spent, and no doubt a good library would be of very great value to the members, and a great want which has been felt for a considerable time will be filled.

The resolution was unanimously carried.

MEDICAL SECTION OF ROYAL SOCIETY OF NEW SOUTH WALES.

The provisional meeting of the Medical Section of the Royal Society of New South Wales for the purpose of electing officers for the ensuing year was held in the room of the Royal Society on Friday, April 21st, 1893, at 8.15 p.m. There were present:—Dr. Fiaschi (President) in the chair, Dr. Huxtable (Secretary), Professor Anderson Stuart, Dr. Sydney Jones, Hon. Dr. MacLaurin, Hon. Dr. Creed, Drs. Graham, Morgan, Martin, Wright, A. J. Hood, Chisholm, Worrall, McCormick, Mullens, Goode, West and Rennie.

The Chairman having announced that the business of the meeting was to elect Chairman, Committee and Secretaries for the year, Dr. J. Graham moved, and Dr. Huxtable seconded, a resolution "that Hon. Dr. MacLaurin, LL.D., M.L.C., be Chairmain for the year." This was carried unanimously.

Dr. MacLaurin then briefly thanked the meeting for the honour they had conferred upon him.

By the consent of the meeting, and on Dr. MacLaurin's suggestion, it was agreed that as there was only one senior member on the Committee, the whole of the Committee of five should be balloted for. A ballot being taken, the Chairman declared the following gentlemen duly elected:—Drs. Fiaschi, Anderson Stuart, Chisholm, Sydney Jones and Graham.

Professor Anderson Stuart moved, and Dr. L. R. Huxtable seconded, "that Dr. G. E. Rennie be an Honorary Secretary."

Dr. Sydney Jones moved, and Dr. Wright seconded, "that Dr. L. R. Huxtable be re-elected Honorary Secretary." There being no other nominations, Drs. Huxtable and Rennie were declared duly elected as Honorary Secretaries.

It was resolved, on the suggestion of Professor Anderson Stuart, that there be only three meetings of the Section during the year, and that the dates of meeting should be fixed by the Committee and announced as early as possible.

Dr. Huxtable having announced the intention of British Medical Association to approach the Council of the Royal Society with a view to the establishment, in connection with the local branch of the British Medical Association, of a medical library, in the hope of obtaining certain concessions from the Council, it was resolved, on the motion of Dr. Worrall, seconded by Dr. Jarvie Hood, "that Dr. Sydney Jones, Prof. A. Stuart, and Dr. Huxtable be a Committee to draw up a report on the matter." The meeting then adjourned.

The next meeting will be held at the Royal Society's room on Friday evening, June 16, 1893, at 8.15 p.m. The evening will be devoted to a discussion on "Peripheral Neuritis," when there will be in addition microscopical and macroscopical exhibitions and demonstrations.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

Ordinary Monthly Meeting, held at the Adelaide Hospital on the 30th March.

Present: the Vice-president (Dr. Poulton), in the chair; the Treasurer (Dr. Corbin), Drs. J. C. Verco, W. A. Giles, Morris, Harbison, Gibbes, A. A. Hamilton, A. E. Wigg, Borthwick, Rogers, C. G. McLeod, Teichelmann, Perks, C. Magarey, Archer, and the Secretary (Dr. Lendon); Dr. Sweetapple, as a visitor; also Messrs. Irwin and Corbin (undergraduates).

Some pathological specimens were shown by Professor Watson, and Dr. Morris, (typhlitis with a perforated appendix).

Living Exhibits.

Dr. A. E. Wigg, case of encephalocele successfully operated upon.

Dr. Giles, Pirogoff's amputation; also double empyema, successful operation.

On the motion of Dr. J. C. **Verco** the minutes of the meeting of February 23 were taken as read and confirmed.

The minutes of the special meeting of March 23 were then read and confirmed.

A letter was read from Mrs. Thomas acknowledging the resolution of condolence with her on the death of her husband, Dr. J. Davies Thomas.

A letter from the President-elect of the British Medical Association was referred to the Council.

Dr. Morris and **Dr. Archer** drew attention to a letter and some comments upon the recent report of the advertising committee. After a brief discussion it was suggested that Dr. Archer should bring up the matter at the next Council meeting.

Hepatic Abscess.

Dr. Stirling contributed the following cases:—

Case xvi., Hepatic Abscess—Incision—Recovery.

Charles B., transferred from Leopold Ward 21st May, 1887. Has hepatic abscess. Had enteric fever at the Barrier two months ago; never had dysentery. Has a well-defined prominence in mid-line of abdomen, in epigastric region, everting costal cartilages; tender on pressure and fluctuant.

May 22.—Etherized. An incision two and a half inches long made over most prominent part of tumour. Tumour adherent to abdominal wall. Tumour was incised, a quantity of pus gushed out; the pus was thick, rather curdly, brownish, and copious. After being well irrigated, which brought away a quantity of reddish, partly organized soft substance, two large drainage tubes inserted and edges of wound brought together. Dressed same evening, a good deal of blood-stained discharge on dressings.

May 23.—Dressed twice. No pain except on coughing; expectoration purulent and yellowish.

May 26.—Dressed twice daily. Still a quantity of reddish, semi-coagulated material escapes; not purulent. Cough better; less expectoration."

Discharged 25th June, 1887. Cured.

Case xvii., Hepatic Abscess—Operation—Death.

Herman K., *æt.* 32. Admitted under Dr. Stirling in July, 1890. Died October 11, 1890.

Pain in abdomen two weeks; blood in motions one week; albuminuria and casts. Liver dulness from sixth rib to four inches below costal margin in right nipple line.

August 1.—Aspiration, then incision and evacuation of pus.

Autopsy.—Follicular ulceration in sigmoid flexure; cocoanut size abscess in right lobe, opening into duodenum; gall bladder absent; no calculi found. Walnut size abscess in left lobe; sprinkling of sago grain incipient abscesses in liver. Spleen, kidneys, and lungs free.

Dr. J. C. Verco commented upon the difficulty of diagnosis between an empyema on the right side, an abscess situate between the diaphragm and the liver, and a hepatic abscess, illustrating his remarks by cases which had been under his care. He added that he agreed with the opinion expressed by Dr. Lendon that the abscess of the liver met with in South Australia could not be differentiated from the so-called tropical abscess.

Dr. Teichelmann had seen in England three hepatic abscesses which were all diagnosed as empyemata.

Dr. Borthwick said: "My contribution to this discussion perhaps requires an apology, inasmuch as it will appear to be rather of a theoretical than of a practical nature; but the bacteriological aspect of the subject will have some bearing on the etiology and prevention of the disease, and on that account a few remarks may be permitted. The papers read at last meeting illustrated the two kinds of hepatic abscesses usually met with—the small and multiple, and the large and single abscess. We may leave out of account for the present those set up by mechanical causes, and those resulting from suppurating hydatids. The first group—the small and multiple abscesses—is metastatic or pyæmic, and usually easily traceable to the absorption of septic micro-organisms from a wound. The micro-organisms most frequently found in this relation are the streptococcus pyogenes and the staphylococcus pyogenes (aureus and albus). The second group—the large single abscess—has a more obscure history. The papers already referred to show that they are associated with pneumonia and with dysentery; and Dr. Poulton mentioned the possibility of their being associated with actinomycosis. I propose to show the probability of a causal relationship between these diseases and hepatic abscess. In regard to *actinomycosis*, this is a disease which affects animals, especially cattle and horses; but it has been found to be communicable also to man. The micro-organism, actinomyces, which has been variously looked upon as a mould fungus and a fission fungus with a cladothrix formation, has been shown to occur in various suppurative processes in man—in the lungs, in the pleural cavity, in the liver, and in connection with the bones of the spine; and as recent observations have proved this disease to be prevalent among cattle in these colonies, it is quite possible that it may be the cause of some cases of hepatic abscess. The suggestion thrown out by Dr. Poulton is worthy of note; and as an aid to diagnosis it may be mentioned that the pus in these cases is yellow or brownish-yellow in colour, extremely granular, of a slimy consistence, and contains green points, which are said to be diagnostic, while the organism itself under the microscope has the characteristic rayed or star-like appearance. In regard to the possible relation between *pneumonia* and hepatic abscess, it has been shown that the specific microbe, known as the pneumo-coccus of Fräenkel, is capable of causing the formation of abscesses in various parts of the body, not only during or immediately after an attack of pneumonia, but also when no pneumonia is or has been present. This latter statement is rendered more explicable when it is borne in mind that the pneumo-coccus is found in the saliva for a long time after an attack of pneumonia; and further, that it has been isolated from the mouths of persons who have never had the disease. Among the various organs of the body in which this microbe occurs in relation to a suppurative process is the liver, so that it must be taken into account as a cause of hepatic abscess. We now come to the association of *dysentery* with hepatic abscess—a fact which stands out very prominently in the papers that have been read. Various views have been propounded in regard to this association, one being that the dysentery precedes, and probably causes, the abscess of the liver; another that the dysentery follows and probably results from the abscess, and another that the association of the two is purely accidental. I propose to show that bacteriologically the first view is not only possible but probable. Unfortunately, the bacteriological history of dysentery has not been thoroughly worked out, and consequently no one microbe can lay claim to the honour of being the specific microbe; but as it is generally conceded there is one, we may arrive at some conclusion by reasoning from analogy. Let me, however, in the first place, refer to the easy possibility of pyæmic abscesses occurring with dysentery; for the ulcerated surface of the bowel, which contains the ordinary septic micro-organisms, including the streptococci and staphylococci already referred to, affords an open door for the absorption of these organisms. But in like manner it is possible for the specific organisms to find an entrance, and the question simply is whether these specific microbes have any action after absorption? The bacterium coli commune, which appears to exist normally in the bowel, and has been described as having a causal relation to some forms of dysenteric disease and to typhoid fever itself, has been isolated alone from the pus of various abscesses, including abscess of the liver. Then, if we take typhoid fever, which has a specific bacillus (Eberth's or Gaffky's), we find similarly that the microbe is capable of migrating from the intestinal lesion to various parts of the body, and has been isolated from the pus of abscesses in a state of purity. I might also refer to the tubercle bacillus, which is able to migrate from a primary intestinal lesion and set up suppuration in distant organs. These instances show that not only may the ordinary pyogenic organisms be taken into the system from an intestinal lesion, but that organisms other than these, organisms which have a specific action other than purely pyogenic, may also be taken into the system, and further, that these specific organisms when so taken in may exert a pyogenic action. It may be that this latter action is a higher development, indicating the acquiring of a double specific action, the beginning of a general as well as a local action. For instance, the bacterium coli commune and Gaffky's bacillus primarily cause a local lesion, but the microbe can only exert a pyogenic action after absorption. On the other hand, the tubercle bacillus not only acts locally but carries its specific action with it when absorbed. The secondary effect has never been found apart from the first in these cases, thus an abscess is not caused by Gaffky's bacillus unless typhoid fever is present; but in the case of the pneumococcus we have seen that the microbe may enter the system and set up suppuration without the occurrence of pneumonia. Whether the microbe of dysentery possesses this double or alternative specific action is of course unknown; but in view of the frequent association of dysentery with the large hepatic abscess, and in view of the pyogenic action of other microbes specific to intestinal lesions, I think the possibility of the hepatic abscess being caused by the microbe of dysentery must be admitted. Further, in view of the occurrence of hepatic abscess in this colony, and in view of the prevalence of diarrhœal diseases, it may be that the causal factor is capable of extension. At any rate I think I have made out a case for the bacteriological investigation of these diseases, and also of hepatic abscess; for it is evident that if the hypothesis advanced prove to be correct, it has an important practical bearing on the disease under discussion. It should be attempted in the first place to prevent the diarrhœal disease by hygienic and sanitary means, and in the second place to check the development and growth of the microbes in the intestinal canal by antiseptic treatment."

The Secretary read the following communication from Dr. Bickle.

THREE CASES OF HEPATIC ABSCESS.

By Leonard W. Bickle, M.R.C.S. Eng., L.R.C.P. Lond., Mount Barker, S.A.

A perusal of the interesting cases recorded in this month's *Australasian Medical Gazette* has led me to think over any cases that may have come under my care. At the present I can think of three only, but as they are typical of three distinct classes I will briefly refer to them.

Case 1. Tropical abscess, or abscess following dysentery in old sailor.—Case 10 in appendix.

Case 2. Abscess due to foreign body, *i.e.*, hydatid.

Case 3. Traumatic abscess — aspiration — cure.—On August 16, 1888, I saw a middle-aged man who had been kicked by a horse. On the left side in front the upper ribs were in a state of comminuted fracture, which had set up pneumonia. The distress was extreme, and great pain over the liver was also complained of; the liver area was enlarged. In all probability the liver had been injured by the horse's kick, or he fell on that side from the force of the blow that shattered the ribs. The pneumonia gradually subsided, leaving a large effusion, which I spirated on September 3. The abdominal trouble was still very severe, and doubtful fluctuation was obtained from a localized swelling or bulging of the liver; abdominal parietes freely moveable over the tumour; no redness of skin or local heat. On the 6th (three days later) I aspirated this swelling, and obtained nearly a teacupful of matter and blood. Great relief followed, and the liver gradually diminished in size to the normal. On the 13th, and again on the 30th, the effusion in left pleura was evacuated; after this there was no re-accumulation. Complete restoration to health gradually followed, and since then he has been able to actively carry out the duties of his life as a general and sheep farmer. It is interesting to notice that the one aspiration of a fair-sized abscess in the liver resulted in a cure.

Dr. Lendon replied, and Dr. Poulton closed the discussion with a few remarks.

Dr. Rogers read his paper, the discussion of which was deferred.

SOME REMARKABLE PHASES OF HYSTERIA (TRANCE AND HYSTERO-EPILEPSY).

By R. S. Rogers, M.B. and M. Ch. Ed.

The two following cases, on account of their rarity, may justly be classed among the curiosities of medical science.

The first is an example of lethargic stupor, or so-called trance; the second a very unusual form of hystero-epilepsy.

In looking up the journals I have been able to find the records of 21 authentic cases of trance during the last half century. Of these, twelve occurred among females, and nine among males. In seven cases a distinct history of hysteria could be traced; in three the patients were epileptic. Thus in nearly 50 per cent. of the cases these two diseases might be regarded as pre-disposing causes. In 24 per cent. the condition came on suddenly, without any assignable cause, in patients with robust health; in a small proportion it seems to have been due to great mental excitement or fright; and in isolated cases it has complicated organic disease of the heart, enteric fever, insanity, and childbirth. In one instance only was there any history of uterine or ovarian trouble, and in this case the patient was markedly hysterical.

In almost all the records there is a provoking silence on the subject of family history, and in many there is not even a reference to the previous history of the patient, omissions which do not facilitate investigations into the etiology of this remarkable condition.

The disease is apparently one of early life. In the 21 cases to which I have referred I find the average age for females was 26, for males 31; making a common average for both sexes of 29. years. Another noticeable feature is the small mortality; in 21 cases only one fatal result is recorded.

I have not been successful in discovering a single authentic instance in which the state of trance was mistaken for death, nor, indeed, any case in which such a mistake might have been considered pardonable.

CASE I.

The patient, L. L., is a girl nearly 17 years of age. Her general health has not been good since the onset of menstruation, about four years ago. Last July she developed anæmia, and then for the first time began to walk in her sleep, a habit which has since that time become common with her. On several occasions she has suffered from ordinary hysterical fits. Her mother is neurotic and suffers from goitre; her father is also very neurotic and suffers from phthisis. There is no history of insanity in her family.

Her present illness dates from Thursday, 20th October, 1892. On the afternoon of that day she had a severe attack of diarrhœa and vomiting. She returned home from her situation the following morning, went to bed directly, and at once started to sleep. I saw her for the first time four days later. During the intervening period her friends had several times been able to administer a little fluid food by shaking her into an irritable, semi-conscious condition; she also had had one of her attacks of somnambulism, when she carried a lamp into her brother's room at midnight, spoke a couple of meaningless sentences, then returned immediately to bed; and twice she had got up in a somnambulistic state to attend to her emunctories, otherwise she had slept continuously.

On the 24th I found her sleeping quietly. I could not succeed in waking her by shaking, pricking, or pinching. Her mother was rather more successful, and the patient opened her eyes once or twice in response to her efforts, but quickly closed them again. She resisted any attempt to make her sit up, but there was no catalepsy. Temperature normal. Pulse extremely feeble and difficult to count. Pupils equal and dilated. The patient shut her eyes closely when I attempted to open them. The patellar reflex was normal; the plantar reflex could at first be obtained in the right foot, though considerably delayed, but after a few trials it totally disappeared. Slight pricks with a pin on the soles of the feet were not felt; severe pricks (passing to the subcutaneous muscles) were followed by withdrawal of the foot after a very distinct latent period. Mild electrical stimuli to the soles produced no effect; strong faradic currents were followed by withdrawal after a distinct interval. It was by this means that I succeeded in arousing her sufficiently well to give intelligent replies to my questions. She said that she had a pain shooting through her temples, and complained of great coldness in the feet, then immediately relapsed into stupor again. Her feet were cold to the sense of touch. The urine contained a good deal of uric acid, but no albumen.

She was put on large doses of Easton's syrup and fed on eggs and custard. Soon after this the patient began to have lucid intervals, and the reflex centres became less dull.

On the 26th October I got the plantar reflex in the left foot for the first time, and I also found that the right leg was anæsthetic below the knee.

From this date the patient began gradually to recover. Her lucid intervals lengthened and became more frequent, until the 31st October, 11 days after her seizure, when she was able to leave her bed for the first time.

The anæsthesia in the right leg had gradually disappeared by the 7th November, her colour had to a large extent returned, and on that date she appeared almost quite well.

On the 17th November, however, she fell into another stupor, and remained in that condition exactly a week. During this period she absolutely refused to take food or medicine, and her friends were unable to arouse her.

Three times daily a strong interrupted current was applied to the soles of her feet. So dull were her reflex centres that for the first two days *one* *to two minutes* always elapsed between the application of the sponges and the resulting sensation and withdrawal of the foot. During the whole of this week she was given 10 mins. of the liq. strychniæ B. P. thrice daily hypodermically, that is to say *half a drachm per diem*. It never produced the slightest toxic symptom, but under its use I could watch the latent period for electrical stimuli gradually shorten until it was at length reduced to 30 seconds.

The routine practice on these occasions was first to give the hypodermic, then the battery, and when the patient became fully alive to what was going on, bully her into swallowing a cup of beaten up eggs or custard under threat of another application of the current. She was extremely difficult to feed. After her meal she invariably went off to sleep again.

During these periods of forced consciousness she was evidently dominated by some delusions, and differed markedly from her normal self. A deep frown sat on her features, and she regarded those around her (especially her mother, to whom she is deeply attached) with looks of anger and hatred. It is difficult to imagine the expression of a face so completely changed.

Throughout this week she had no spontaneous lucid intervals, as on the former occasion. Her bowels were only opened once, and her bladder emptied twice during that period. When she did attend to these calls of nature she appeared to do so in a state of somnambulism.

On the 24th November, after the usual application of the battery, she suddenly became conscious; knew the people in the room; seemed pleased to see her friends; and without compulsion took nourishment.

She remained well until the 12th January, when she once more fell into a trance in which the stupor was so intense that I found it next to impossible to arouse her.

The faradic current had now to be applied for as long as six minutes before it produced any impression, and almost instantly on its removal she would again become lethargic. I had to be satisfied with the administration of food once daily. Her whole body was so rigid that we were able, by placing our hands below the occiput and under her heels, to raise her *en masse*. Her arms, too, were so rigidly flexed across the chest that it required the exertion of very considerable strength to extend them at the elbow joints. They readily retained any cataleptic attitudes which were given them. The hands were clenched, the soles of the feet incurved. I was quite unable to bend the leg at the knee. The pulse was extremely weak and difficult to count; the heart beats averaged 60 per minute; respirations shallow, 10 per minute. This third attack was preceded by an ordinary hysterical fit, and the seizure terminated suddenly on the 19th January, exactly a week from its date of commencement.

Next day, 20th, it was found that almost her whole body was in a state of anæsthesia. Needles thrust through the flesh, in some instances to the bone, were evidently unfelt by the patient. The punctures in all instances bled, but less freely than normal. The accompanying figures indicate the general distribution of the anæsthesia. It will be noted that this distribution is not a nervous one.

The absolute anæsthesia is represented by the heavy shading, the incomplete anæsthesia by the light shading. With the exception of a sensitive patch on the left wrist, the anæsthesia is bilaterally symmetrical.

In the *lower extremities* the upper margin of absolute anæsthesia is indicated by a line beginning posteriorily at the groove of the nates and sweeping upwards parallel to, but slightly below the iliac crest, then dipping downwards anteriorly and running parallel to, and one inch below, the fold of the groin.

In the *upper extremities* the anæsthesia is absolute everywhere, with the exception of a small patch about the size of a florin on the front of the left wrist, where sensation is perfect, and the palms of both hands, where the anæsthesia is incomplete.

In the *trunk* the lower limit of absolute anæsthesia is indicated by a curved line beginning at the tenth dorsal vertebra, rising towards the angle of the scapula, then dipping down in the midaxillary line to the seventh rib. Anteriorly it runs from this last point across the body with a slight convexity downwards. The lower margin of this line is bounded by a narrow zone three quarters of an inch wide of incomplete anæsthesia, and immediately below this we have the area of normal sensation.

In the *head and neck* the anæsthesia is absolute over the areas represented by the trapezius and sterno-mastoid muscles. It is incomplete over the front of the neck. It is absolute at the angles of the jaws, but incomplete over the cheeks, shading off into normal sensation in the nose, lips and front part of the chin. Sensation appears to be normal in the scalp and ears, but dulled in the forehead.

A curious result was obtained in testing her sense of temperature. It was found that thermo-anæsthesia existed all over the upper extremities (with the exception of the palms of the hands), over the cheeks, nose, and chin, and upper part of the neck and trunk corresponding to the area of absolute or incomplete analgesia. A hot object brought in contact with any of these parts produced a vivid redness, but no thermal sensation whatever. The same object brought in contact with the lower extremities at once caused the patient to cry out with pain. The distinction between analgesia and thermo-anæsthesia could scarcely have been more marked.

The sensation of cold, produced by an ether spray, gave everywhere a negative result, except on the palm of the left hand, where it was felt indistinctly.

The application of metals during the passage of a faradic current gave negative results.

The patient displayed no hesitation in picking up a pin when her eyes were closed, and she could walk perfectly well provided she watched her steps. She experienced a sense of insecurity when walking however, and had the sensation of stepping upon some soft velvety substance. She had no power of anywhere distinguishing even marked differences in weight, except in the left hand, where this power was present, though very defective. Ankle clonus was well marked at this stage of her illness, and the patellar reflexes greatly exaggerated.

On the 5th February it was noticed that the sensation was slowly returning to her arms. This process was completed in the upper part of the trunk and upper extremities by the 8th February. The anæsthesia was still absolute in the lower extremities.

On the 9th February the patient suffered from severe pains in her legs and pelvis, and on pricking her lower extremities we, much to our surprise, found that the anæsthesia had suddenly disappeared, and further, that the patellar reflex was no longer exaggerated, but normal. For the next few hours both legs were very much swollen.

The patient tells me that she has absolutely no recollection whatever of anything that occurred during her first attack. The second and third attacks she regards as an ordinary sleep, in which she was oblivious to all her surroundings, but subject to dreams which she describes as *pleasant*. In both cases the central idea in her dream was that she was dead—an experience which she did not find at all disagreeable.

Dr. T. K. Hamilton has examined the patient's eyes and reports as follows :—

"January 25, 1893.—The eyeballs are structurally healthy. Vision$=\bar{C}$ 0.75 $D=\frac{6}{6}$ (both under homatropine and cocaine). Fields : Right, normal; left, concentrically restricted (*vide* chart). In making the usual perimetric examination there was found to exist what appears to be the only constant symptom as regards the visual fields in these cases, viz., that when the test object is moved centripetally it seems to the patient to be larger than when it is moved in the centrifugal direction. This is supposed to depend upon a rapid tiring of the retina or of the patient's attention to visual impressions. Colour perception is normal. Examination of the muscles revealed :—Hyperphoria=Left 1° ; insufficiency of the internal recti=6° ; adduction=3° ; abduction=8° ; sursumduction : Right=2° ; left=2°.

"March 20.—Patient has now some diplopia, more or less constant. Vision$=\frac{6}{9}$ and Jæger 2, at 30 c.m. $\bar{C}+0{\cdot}50$ D. $\frac{6}{6}$ and Jæger 1. Muscle tests :—Hyperphoria=Left 1° ; insufficiency of internal recti=4° ; adduction=6° ; abduction=6° ; sursumduction : Right = 1° ; left=2°.

"March 24.—Diplopia continues off and on, and frequently threatens. Muscle tests :—Hyperphoria=Left 1° ; insufficiency of internal recti=3° ; adduction=6° ; abduction=6° ; sursumduction : Right=2° ; left=2°.

"March 27.—Fields taken (*vide* charts). Marked concentric contraction of both found to exist. The 'spiral limitation,' referred to by Priestley Smith as common in these neurasthenic conditions, was not observed.

The points of interest in the case are these :—

1. The uncertainty of some of the symptoms, both subjective and objective, which is characteristic of such cases, *e.g.*, the contraction of only one field on the first, and of both on the next examination ; the coming on of diplopia and accommodative asthenopia as new developments.

2. The very marked deficiency of converging power and feebleness of the interni (exophoria). The adduction ranged in the three (3) examinations from only 3° to 6° prism, while the normal eye should be able to overcome a prism up to 23° or 25°.

3. The presence of hyperphoria, which was of exactly the same degree on each of the three separate examinations. It is more than probable that this latent vertical deviation had been of long standing, as it caused no headache, and had only come to give her trouble lately from the diminished power of overcoming it. The diplopia probably depends upon this deviation, which, as Maddox has pointed out, is often the case, for, according to his experience, slight vertical deviations usually cause far more trouble than slight horizontal ones."

It seems to me that in seeking an explanation for the anæsthesia in this and similar cases we must discard the *central* theories so commonly advanced, and look for a peripheral cause. For if we regard its origin as central, we ought certainly to expect the anæsthesia to follow the distribution of a definite set of nerves. No such law is observed in the above case.

On the other hand I think the phenomena will be adequately explained if we regard them as due to long-continued malnutrition of the nerves themselves, owing to defective blood supply through their vasa nervorum.

This conclusion is supported by the following considerations :—

1. It has been proved physiologically that compression of the blood supply to a nerve lessens its sensory excitability.

2. A more or less perfect form of anæsthesia may be induced artificially by rendering a part of the body bloodless, as in the application of an Esmarch's bandage to a limb.

3. In certain cases of defective circulation, as for example in a limb which has "gone to sleep," or in fingers which have become "dead," the parts are frequently anæsthetic.

If, therefore, a constriction of the arterioles should occur in any particular area (as it often does in certain physiological or pathological states), we have all the conditions necessary for the establishment of anæsthesia in that area.

In the case of my own patient the return of sensation to the lower extremities was accompanied by severe pains and swelling of the limbs, due no doubt to the sudden and increased flow of blood through the long-constricted blood vessels —a fact which suggests that loss of sensibility in these parts may have resulted from the anæmic condition of their nerves.

Not only does such a theory supply a cause for the anæsthesia, but it also supplies a reasonable explanation for its distribution. As true as the physical law of action and reaction is its physiological equivalent (with its converse), that contraction of the arterioles in any large area means a correspoding dilatation in another part of the body.

The best example of this is to be seen in the case of shock or faint, where the deadly pallor of the skin does not indicate an actual diminution in the total quantity of blood in the body. It is well known that in such cases the tendency is for the blood to gravitate to the great veins in the abdominal cavity.

Now in the case of this girl the zone of normal sensation corresponds with a fair amount of exactitude to the abdominal cavity. Surely this must be due to the superior blood supply in that particular region.

The result of the application of thermal stimuli in this case is also of great physiological interest. It is conceivable that the application of a hot object might cause temporary dilatation of the arterioles at that point, and so increase the excitability of the sensory nerves sufficiently to permit of the conduction of a thermal impulse. Such a rule, however, would not be limited in its application to the lower extremities only. It would apply to all parts of the trunk. We are therefore thrown back on the suggestion which has more than once been made by physiologists, that there exists in the human body a special series of nerve fibres, whose function it is to conduct thermal impulses only.

The central problem, viz., the lethargy, in this most interesting case is by no means easy of solution. This phenomenon is generally supposed to be due to an anæmic condition of the grey matter in the cerebral cortex. A *post-mortem* in one remarkable case of lethargy in 1869 seems to support this view, for it was found that there was excessive decolouration of the grey matter of the cortex, and that the vessels were scarcely apparent, even in the grey substance of the striated bodies (*Medical Times*, February, 1869, p. 631) ; and it has also been several times noticed in similar conditions that an examination of the fundus of the eye during the attack showed the optic disc and retina to be abnormally pale.

This hypothesis fits in fairly well with most of the facts observed in my cases. We know that the activity of nerve cells in common with other tissues is diminished by a defective vascular supply, and increased by hyperæmia. If you accept my explanation for the peculiar distribution of the anæsthesia in this case, viz., the storing up of the blood in the great abdominal vessels, you have all the conditions necessary for depletion of the cerebral vessels and consequent defective function in the perceptive centres.

The great difficulty in accepting this anæmic theory of anæmia of the grey matter occurs when we try to make it fit in with the subsequent phenomena, viz., the sudden restoration to consciousness, with perfect mental function, although the abnormal conditions of circulation in the rest of the body apparently remained unaltered. It is a significant fact that the tendon reflex, whose centre is situated in the upper lumbar vertebræ, within the zone of dilated arterioles, was exaggerated (as generally occurs in early myelitis), and still more significant that it became normal on the disappearance of anæsthesia and re-establishment of the circulation. As we should expect, the organic reflexes whose centres are situated in the same zone retained their functions throughout the patient's illness.

CASE II.

The second of my cases was Mrs. H., aged 21, a young lady of some culture and good family history, who had contracted a second marriage three months before she became my patient. She was a bright, intelligent girl, and had always exhibited a well-balanced mind until her present illness. She was anæmic, and suffered from the usual diminution in the menses, but there seems to have been no uterine or ovarian trouble. She had married comfortably, had no domestic worries, and her surroundings were in every way appropriate and happy.

On the evening of the 24th August, 1889, she went to bed in her usual health and spirits, but shortly afterwards her husband heard her sighing heavily, and thinking that she had nightmare, endeavoured to awaken her. Failing to do this, he lit the candle and found her unconscious. She remained in this condition for about an hour, at the end of which time she suddenly awoke, got up and micturated, then returned to bed and at once resumed her state of mental stupor.

She was still in this condition when I saw her at 2 o'clock in the morning. She was lying fully extended on her back, her legs rigid, with the left foot firmly pressed down on the dorsum of the right; respiration sighing; temperature slightly raised (100°); pupils normal. It was impossible to arouse her by pricking, pinching or in any other way. Her whole body appeared to be anæsthetic.

At 3 o'clock she had a convulsive seizure. Her face became cyanotic; breathing ceased a few seconds, then followed a few hurried respirations, and then again cessation. She tossed her head restlessly from side to side and then raised it slightly from the pillow. Her whole body was absolutely rigid; arms extended at the side as though in the act of stretching, and the hands firmly clenched. The feet were firmly crossed, as above described, and even when using great force it was impossible to separate them. The soles of the feet were incurved. There was no opisthotonos.

This condition of muscular rigidity lasted an hour, then gave place to her former state of stupor. This was again succeeded by two or three seizures of shorter duration with their intervening periods of stupor until 6.30 a.m., when the patient became suddenly conscious. She seemed perfectly well, and had no recollection whatever of the events of the night.

She remained well for about 24 hours, when the attacks, which I have above described, began to recur; and during the next few days they became very frequent, each lasting several hours, sometimes coming on spontaneously or being induced by any attempt to move her or by an effort to swallow certain fluids, such as cold water, brandy or wine, or even very strong beef tea.

I attempted to administer bromide of potash and valerian; but as it invariably brought on an attack, it had to be discontinued. Most other drugs proved likewise failures. The attacks were always preceded by crossing of the left foot over the right, and by yawning and stretching. After they were over, the patient seemed bright and happy, and had a very good appetite. This condition constituted the first stage of her illness, and lasted about a week.

The *second stage* came on at the end of that period, and was signalized by a change in the character of the fits. They began to assume a more truly epileptiform nature. The patient became violent, struggled, tore at her chest, and occasionally bruised herself severely against the bedstead. There was no biting of the tongue Cold douches and other applications used in hysteria seemed to increase rather than subdue the fits. Their average duration was about 10 minutes, and they were always succeeded by a drowsy condition, from which the patient could only be roused with difficulty, and which lasted about half-an-hour. These attacks were of frequent occurrence for several days, then suddenly ceased.

I now began the use of bromides and iron, and she took her medicine well for a week. At the end of that time it nauseated her. She left it off, and the fits returned with greater violence than before. Scanty menstruation now came on at the regular period, but had no apparent effect on her illness. Throughout her illness she was violently constipated.

The *third stage* began on the 20th September. It differed from the former stages in the facts that the patient was conscious during her attacks, and suffered from severely painful spasms of various muscles.

During a fit she was always rigid, and frequently threw herself into a state of pleurosthotonos or opisthotonos. Her feet were crossed as usual, and any attempt to separate them not only caused great pain, but had the singular effect of bringing her instantly into a rigid sitting posture. She looked very curious in this position, and for all the world like a mechanical figure worked by springs—her arms rigidly extended from the shoulders; eyes open, fixed, and apparently sightless. As soon as the feet were released they would fly back to their old position, as though attached by elastic bands, and the patient would at once relapse into the horizontal posture. These manœuvres might be repeated as often and rapidly as desired.

During this stage the muscles of the face and jaws were frequently in a state of spasm, causing the patient much pain and often depriving her of the power of speech. She would always reply rationally to questions when her power of articulation was not prevented by this difficulty.

These attacks were succeeded by a short sleep, after which the patient would be all right again; and they were preceded by a feeling of heat, a creeping sensation up the spine, and a general feeling expressed by the patient as that of "curling up." She stated that every muscle and organ in her body appeared "to curl up," and that she had no power to prevent it.

During these attacks, and those which followed in the next stage (fourth), the body was divided at the level of the umbilicus into two divisions—an upper and a lower—in which the difference of temperature was quite perceptible to the hand. When the part above the umbilicus was hot, that below it was cold, and *vice versâ.*

The *fourth stage* began on the 30th September, and was exceedingly curious and complicated. It was characterized by the addition to the last stage (third) of hallucinations and delusions, and also by the interposition of an intermediate phase between the actual fit and the stupor which succeeded it.

These attacks, though varying in detail, were essentially the same in sequence of events. Let me describe one of them.

Phase A.—The fit was ushered in by most of the premonitory symptoms of stage 3, viz., by feeling of heat and creeping sensation up the spine. Unlike that stage, however, the spasms were chiefly confined to the lower extremities and some of the involuntary muscles. As before, any attempt to separate the feet brought the patient at once into the sitting posture. The eyes were wide open and fixed on the ceiling, the pupils dilated and the eyeballs prominent. Speech was unaffected and the patient somewhat loquacious.

She seemed childishly happy, and derived great pleasure from some "pretty things" which she saw on the ceiling. Asked to describe them, she readily did so, describing a series of circles, beginning with red and naming the colours accurately in the order of the spectrum. On interposing my hand quietly in the line of vision, she expressed keen disappointment that although the circles had come nearer they were smaller, not so well marked, and much more insignificant than before.

By no effort could we induce her to change her line of vision, and whenever we attempted to move her she displayed great irritability and still (often with great discomfort to herself) kept her eye fixed on the "fascinating point." Not for one moment did she lose it, and it was curious to see how incapable we were, even by separating her feet and so bringing her into a sudden sitting posture, of diverting her attention for a single instant. If a person placed a hand actually in contact with her eyes she became passionate, declaring that he was shutting out the sight of these rings. She had evidently lost the sense of vision, for she could see nothing placed before her, only noticing the alteration in the distance of the rings.

Not only was the ciliary muscle in a state of spasm, but probably also the tensor tympani, for we found it necessary to speak loudly in order to arrest the patient's attention, and her hearing was also modified in another way. She was unable to distinguish my voice from that of her husband, or her mother's voice from that of her sister-in-law, but instantly recognized the difference between a male and a female voice, that is to say she seemed susceptible to alterations in pitch but not in quality of a sound. She heard questions addressed to her, but in her preoccupied condition did not readily catch their gist. When she did, after asking you to repeat them, she always gave an intelligible reply.

She had lost her sense of taste and could not distinguish between sugar and salt, mistaking them both for sand.

B.—Suddenly the *intermediate phase* of stage 4 set in. Her pupils contracted somewhat and her eyes were no longer fixed. She was able to see and recognize surrounding objects and persons. She was apparently in a shrewd, intelligent frame of mind, and her conversation now became witty and amusing. No stranger coming into the room at this moment would suspect that she was not in her normal mental condition.

It was during this stage, however, that she suffered from delusions or hallucinations. For example, she fancied that her head was of enormous size, and asked me to feel the top of it, indicating a point 18 inches above the crown. Still on this point she was open to conviction, for when I had placed an ordinary hat over it she acknowledged that she must be in error. She complained also that her hands were enormously enlarged, but on asking her to look at them she was again convinced.

C—The intermediate phase of this last stage suddenly terminated by the patient falling asleep. She slept for half-an-hour, then awoke perfectly rational, but singularly enough without any recollection whatever of anything that had occurred during any part of this fourth stage.

These three phases were always gone through with great regularity in this fourth stage, although the first phase varied as regards its phenomena. For instance, instead of seeing spectral rings, the patient sometimes fell into a state of great fear from some terrible hallucination, such as a fire, a murder, or an accident.

About this time, owing to the progressive nature of her malady, I began to fear that the patient was drifting from hystero-epilepsy into one of the more serious forms of insanity, but in less than a week from this, signs of improvement made their appearance. She lost her hallucinations and delusions, and for about 10 months afterwards she remained subject to the milder attacks which characterized the first stage of her illness, although less severe and not so prolonged.

Early in October she became pregnant for the first time, and as nearly as I can judge, the improvement in her condition must have been coincident with her conception.

I attended her through a perfectly normal confinement the following July, and since that period the patient has been absolutely free from her attacks.

There is only one point that deserves reference during her pregnancy. Even as early as the third month and until delivery her breasts assumed enormous proportions, so much so that they became a burden to her. She was unable to wear ordinary corsets, and found mammary suspensors an absolute necessity.

During the whole of her illness she was violently constipated. Her urine was always free from albumen, but during the early stage of her illness contained a well-marked quantity of uric acid.

This aberrant form of hystero-epilepsy is of extreme interest as illustrating what may be termed the *evolution* of Professor Charcot's type of the Salpêtrière. Stages 1 and 2 (particularly the latter) may be fairly regarded as representing his *epileptoid period.*

In the first of these stages we have, to begin with, a very prolonged tonic stage alternating with a relatively short clonic stage, the period of muscular relaxation and stertor being in this instance absorbed by the tonic stage.

In stage 3 the attack is preceded by a distinct aura, and starts with a brief epileptoid period (of tonic spasm only), during which, however, the patient retains consciousness. This in turn is followed by Charcot's second period, in which we get the phenomena which he describes as the *segment of a circle* (embraced by our terms opisthotonos and pleurosthotonos). It is difficult in his type to find anything exactly analogous to the peculiar attitude into which my patient was thrown by the separation of her feet. Possibly it might fit in under his heading of *posturing.*

His third period of psychical phenomena is here absent, but is replaced by one of stupor.

In stage 4, the process of evolution proceeds a step further. Here the aura and epileptoid period are represented, but his second period is practically absent. His third and most interesting period, where the psychical element comes into play, is represented for the first time in this stage.

It seems impossible to escape the conviction that this case of hystero-epilepsy was the result of some functional derangement of the reproductive organs, acting on a constitution rendered already susceptible by anæmia. It began shortly after marriage, continued throughout pregnancy, and suddenly terminated with delivery.

This case, as well as the former, also illustrates some of the difficulties which arise when we attempt to draw a line of demarcation between hysteria and insanity.

Hysteria, epilepsy, and insanity form a trinity of complex and protean relationship, whose intimate connections it is frequently impossible to separate. The rôle of first person is often assumed indiscriminately by one or the other, according to circumstances, but insanity is perhaps more often the progeny than the progenitor of the other two.

Monthly meeting held at the Adelaide Hospital on 27th April, 1893. Present: Drs. Way (President), Poulton (Vice-president), Corbin (Treasurer), A. E. Wigg, Marten, Hayward, Gault, Lermitte, Clindening, Jay, Archer, Sheppard, Evans, Goldsmith, C. Magarey, W. Robertson, Stewart, J. C. Verco, C. G. MacLeod, T. K. Hamilton, J. A. G. Hamilton, Cavenagh-Mainwaring, Seabrook, Powell, Harbison, Professor Watson and Dr. Lendon (Secretary). Dr. Sweetapple and Mr. Irwin were present as visitors.

Numerous pathological specimens were shown by Professor Watson.

Living exhibits were shown by Drs. Powell, Lendon, Poulton, T. K. Hamilton, Archer, and Goldsmith.

The latter gentleman exhibited a case of hydrocephalus—William Gaunt, *æt.* nine years, of healthy parents. Parents state that when born was pale, and though veins of head were rather marked there was no enlargement of head nor any other unfavourable sign till three months old, when they noticed that his eyes were turned downwards and inwards, and soon afterwards noticed his head enlarging. He never moved his limbs from that time till he was 15 months old, and did not commence to speak till four years old, and then could only say a few words; has improved more lately, and can now recite various pieces of poetry, and can count. *Present Condition*: Swallowing difficult; cannot drink unless out of a spout; speaks indistinctly and with an effort; always knows when he wants to micturate or defæcate, and then says he has a pain; teeth fairly regular, though decayed. Father states that he has had three or four sets, which decay soon after appearing. He swallows his food without chewing; sight apparently good; can count fingers; has had four attacks of convulsions—first five years ago, and last five months ago. Head greatly enlarged—circumference, 27½ inches; from occiput to root of nose, 21 inches; from external and meatus across top of skull, 17½ inches. Angular and upper facial veins marked; anterior fontanelle not quite closed to left of median line; no spina bifida; back slightly kyphotic; superficial reflexes exaggerated; legs thin; muscles, though small, fairly firm; cannot straighten legs—always has them flexed, and right leg adducted so that it lies over left; slight subluxation of knee joints; height, 3 feet 7 inches.

Dr. Way read his paper on a "Case of Inguinal Ovarian Hernia," which was discussed by Drs. Corbin and Jay.

Dr. Poulton read his paper on a "Case of Hydatid of the Tibia and Knee-joint," which was discussed by Drs. J. C. Verco and Way.

Dr. Seabrook read his paper on a "Case of Endemic Hæmaturia," which was discussed by Drs. Poulton and Way.

Dr. Marten read his paper on a "Case of Empyema of Abdominal Origin," which was discussed by Dr. Stewart.

All these papers will appear in the next issue of the *A. M. Gazette.*

Minutes of last meeting were read and confirmed. Drs. Poole, E. L. Archer, McDougall, and Sweetapple were duly elected members.

NEWCASTLE (N.S.W.) MEDICAL SOCIETY.

The Third Annual Meeting of the Newcastle Medical Society was held at 50 Watt-street on April 13. Dr. J. L. Beeston (President) in the chair; there were also present: Drs. Nash, Treloar, Harris, Eames, Smith, Hester, Ross, and Nickson. Visitors: Drs. Cribb and Kane.

The Annual Report showed that the members had taken a lively interest in the Society, the average attendance being good and the papers read producing full and free discussion.

The Hon. Treasurer reported that the financial condition of the society was sound, a balance of £12 standing to its credit.

The President (Dr. Beeston) then read the following

PRESIDENTIAL ADDRESS.

Gentlemen,—Before commencing our proceedings this evening allow me to thank you for the honour done me in electing me President of the Society for the past year, and also to congratulate the members of the Society on its attaining the fourth year of its existence under the reconstructed scheme.

Owing to circumstances needless to dwell upon, the amount of work done during the past year was not so great as in former years, yet the discussion evoked on the different subjects was both instructive and interesting.

During the past year the Intercolonial Medical Congress was held in Sydney, and presided over by Dr. Sydney Jones. The Society was officially represented by our past President, Dr. Nash, and by our Secretary, Dr. Nickson, whilst it was individually represented by almost all of our members. It is unnecessary for me to emphasize the incalculable benefit derived by the profession at large by the discussions which each subject brought forth at the Congress, and it is only to be regretted that similar gatherings are not of more frequent occurrence.

In the Section of Surgery, on the second day, Dr. Shewen contributed a valuable and exhaustive paper on "Anæsthetics," giving his experiences and results of both chloroform and ether, and analysing the causes of death in each case from chloroform. Dr. Shewen expressed the opinion that it was only by careful clinical records being taken that statistics became of any value, and he laid stress on the point that these should not be taken by the anæsthetist, whose attention was liable to be diverted from record-taking should any untoward symptom arise. He therefore suggested that these records should be taken by a bystander, whose duty should be to do this and nothing else. The concensus of opinion appeared to be that both chloroform and ether each had their value in special cases, but that they should, as far as possible, be administered by one accustomed to the use of anæsthetics. Dr. Gardner stated that he looked upon the personal equation of the administrator as of the greatest importance; that while he would operate with comfort with one man giving the anæsthetic, yet with another under the same circumstances he would be in a state of constant anxiety.

A very lengthy discussion took place on the relative merits of the treatment of hydatids by incision into the cyst and by simple tapping. This was of the utmost interest, especially so that the disease appears to be on the increase and we are being more and more frequently brought into contact with it in some form or the other.

Another paper, of great importance to us as members of the profession in general practice, was that by Dr. Manning on "Insanity in relation to the Law." As a result the matter was referred to a special committee, which formulated resolutions for the guidance of practitioners in these cases.

The paper contributed by one of our own members, Dr. Ross, on the "Statistics of Insanity in New South Wales," was of marked interest. From a social point of view the Congress was in every way a success; country members particularly were most hospitably treated, and every information and assistance was tendered by the Hon. Secretaries, Dr. Knaggs and Professor Anderson Stuart. Every one seemed to spend an enjoyable and instructive week.

OVERCROWDING OF THE PROFESSION IN THE COLONIES.

This matter is being brought under our notice more forcibly every day, and was ably dealt with by Mr. L. Bruck in the *Gazette* of March. Australia seems to be looked upon as the happy hunting ground for medical men, and, as a consequence, we have fresh arrivals by almost every mail steamer, on the look out for something to do. In addition to these we have our own University and that of Victoria, which are turning out more men every year, and these naturally remain to practice in the country of their birth. As an instance of the increase in number in our own district I may state that when I started practice about eleven years ago five practitioners supplied the wants of the people, and now there are fourteen within the same radius, although the population has not by any means increased in the same ratio. I think that the different medical societies of Australasia should draw up a joint representation to the examining boards in the United Kingdom, pointing out how overstocked the profession is in these colonies, and asking them to bring under the notice of newly qualified men the difficulty of obtaining practices here. The excess of medical men over the requirements of the population leads to undue and unfair competition, and forces men to pursue discreditable tactics in order to gain a livelihood. This leads me on to speak of another subject, the growing frequency of which is to be regretted; that is

PROFESSIONAL ADVERTISEMENTS.

Obtaining practice by means of advertising one's superior talents in special lines should be decidedly discouraged, as being in the highest degree derogatory to the dignity of the profession. It seems to me deplorable, when one takes up the morning paper, to find Dr. So-and-so stating in a large advertisement that he is a qualified man, and setting forth all the appointments he has held, and finally that he is a specialist in certain subjects. Probably the next column is occupied by the "nervous debility man," who also announces his capabilities in the treatment of disease.

The Master of the Rolls in England, in giving judgment in a case recently, put the case as for the legal profession, and stated that "if any barrister advertised his superior talents, his superior experience, or that he did his advocacy cheaper than others, that it would be so disgraceful that such a one ought to be disbarred." The *British Medical Journal*, in commenting on the case, says that this was an *obiter dictum*, and does not go to the extent of saying that everyone can be struck off the Medical Register for advertising, although a barrister would undoubtedly be disbarred for doing so.

I think, therefore, that any man who endeavours by discreditable advertising to gain practice should be relegated to the level of the man who runs Appleton's Soap or Jacobson's Syrup, and should not be recognized as being any acquisition to the profession he practises, or the college from which he obtained his diploma. Is this kind of thing calculated to raise the profession in the eyes of the general public? I think not. The better class of people will, no doubt, perceive the execrable taste displayed, but the greater number are inclined to put the qualified man and the quack on the same level, and consequently the latter thrives. To put the matter on a different footing: The man who pushes the advertising dodge to these lengths is not acting justly or honourably towards his professional brethren when he tries to make the public believe that he is a proficient in four or five diametrically opposite subjects.

There is just one other matter to which I would allude. The Hon. Dr. Tarrant, at a meeting of the Intercolonial Medical Congress, stated that the Newcastle Medical Society existed as a trade protective society. This was such an obvious misconception of the objects of our Society that the Secretary wrote to Dr. Tarrant, pointing out his mistake and enclosing a copy of our rules, wherein it states that the objects of the Society are the discussion of scientific subjects and questions of ethics. This communication was, however, neither replied to nor contradicted.

In conclusion, gentlemen, I hope the coming session will be productive of good work. These meetings, besides promoting the interchange of ideas, conduce to that friendship which should always exist amongst us; and by cultivating this feeling and acting squarely one towards another, we prevent the general public taking advantage of us by playing one off against the other.

A vote of thanks was accorded to the retiring President for the interest he had taken in the Society.

The election of officers for the ensuing session was then proceeded with, and the following were selected:—President, Dr. R. H. Treloar; Vice-president, Dr. J. Stapleton; Hon. Treasurer, Dr. G. F. Smith; Hon. Secretary, Dr. W. Nickson.

DR. HESTER proposed, and DR. EAMES seconded, "That the Executive Officers shall constitute a subcommittee to report to the next meeting any necessary alterations in the Society's rules, and to make inquiries as to a suitable room in which to hold our meetings." Carried.

REVIEW.

◆

ON SNAKE-POISON: ITS ACTION AND ITS ANTIDOTE. By A. Müller, M.D. Sydney: L. Bruck, 1893. Price 5s.

This book is a seasonable addition to the valuable contribution Dr. Müller has previously made. It lucidly and forcibly places before medical men and the public generally the grounds which induced him to adopt the hypodermic injection of strychnia in the treatment of snakebite. His theory of the action of the poison is fully borne out by the very carefully conducted experiments of Feoktistow at Dorpat, in Russia. The reports of the numerous cases reprinted in the volume fully support the author's contention that the treatment is thoroughly effective when promptly used in a proper manner. The instances given by Dr. Banerjee of his success in counteracting the effects of the venom of Indian snakes of a deadly character are highly interesting, and go to show what may be done in apparently desperate cases by a courageous use of the antidote. It is a subject for congratulation that the Indian Government has so promptly directed its use in that country, where so many thousands of people perish annually from snakebite. The author's generous acknowledgment of the service rendered to him by the publicity given to his views in the columns of *The Australasian Medical Gazette* is of course gratifying to us.

NOTICE

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, MAY 15, 1893.

EDITORIALS.

SMALLPOX IN WESTERN AUSTRALIA.

◆

THE outbreak of Smallpox in Western Australia is an object lesson which should have a strong educational effect on the public opinion of the other colonies as to the necessity of ensuring the protection of their people by efficient vaccination in infancy, with re-vaccination before puberty. If this be done we need have but little fear of Smallpox, for were a case imported or did one arise in Australia from some chance source of infection, its spread would be impossible in a thoroughly protected population. The statistics of the Smallpox hospital in London are most telling in this particular, for they show that the risk of death is lessened just in proportion to the ascertained number and area of good vaccine scars, whilst it is certain that thousands of people in the older countries exposed to the contagion of this disease without becoming infected, owe their immunity to the efficiency of the protection afforded them by Jenner's discovery.

We have always pointed out that the success which has attended the operations of the Health authorities in preventing the spread of variola on the occasion of former outbreaks in Australia cannot always be hoped for, and that it apparently arose because the infective power of the disease in the commencing epidemics, so promptly curbed, was not so potent as it is frequently known to be. The variola now present in the western colony appears to be of a more malignant type, for though all precautions appear to have been taken, forty cases have occurred since the first was reported at the commencement of April, of whom five subjects have died. It is evident from this comparatively low mortality that the persons attacked have generally been vaccinated in infancy, though it is probable that the operation has been neglected to be repeated in later life.

What the consequence will be, if the infection which is of so active a type in Western Australia gets a footing in New South Wales with its practically unvaccinated population, is not hard to foresee. At the best it will cause the death of many useful people, and the expenditure of tens of thousands of pounds; whilst if the worst happens and the epidemic, getting beyond control, attacks persons in perhaps a quarter of the houses of the chief towns, we shall suffer such a calamity as those having no experience cannot realize. In Western Australia the disease is now present both in Perth and Albany, distant 341 miles from each other.

THE QUEENSLAND MEDICO-ETHICAL ASSOCIATION.

The sister colony of Queensland is just now in the throes of a general election. Reforms of all kinds are being freely advocated with the liberality usual on such occasions. We are glad to see from the Brisbane papers that the Medico-Ethical Association of Queensland does not intend that any man shall say that the medical profession, as represented by it, is one whit behind these reformers in advocating measures likely to be conducive to the common weal. With a unanimity and a disinterestedness alike worthy of imitation, the Medico-Ethical Association in Brisbane, has drawn up a *brochure* embodying recommendations to candidates for parliamentary honours, regarding certain improvements in the State machinery for regulating the public health. This little book in a terse and graphic manner brings out the salient points upon which candidates should be informed with regard to—

(*a*) The establishment of a Department of Public Health.

(*b*) The institution of federal quarantine.

(*c*) The institution of compulsory notification of infectious disease.

(*d*) The provision for a regular supply of reliable vaccine.

(*e*) The registration and inspection of dairies.

(*f*) The establishment of public abattoirs.

(*g*) The establishment of inebriate asylums.

These are all real advances which have been sanctioned by success in other colonies and in other countries, and it only remains to be seen whether the new Parliament of Queensland will be sufficiently alive to the public good, to institute these benefits with as little delay as possible.

We welcome the action of the Queensland Medico-Ethical Association as an earnest that the medical profession is becoming alive to the weight of its opinion when expressed in a corporate body. Had such suggestions emanated from individual members of the profession they might have been treated as "fads," but when deliberately issued by a representative body of the profession they must be listened to with the respect which they deserve. The *Brisbane Courier* begins a leading article on the subject with these words: "The present age is progressive, and the Medico-Ethical Association feels that Australia should keep step with Europe in the march of medical science." The *Telegraph* concludes another thus: "During this piping time we shall hear more about constitutional figments and political figments than about rearing a community of people, exemplifying the loftiest types of manhood in body, mind and character. Alas for an advance (backwards) in civilization! We commend this little book, and command all men everywhere to read it."

We congratulate the Queensland Medico-Ethical Association on their public-spirited endeavour to bring the laws of sanitary and preventive medicine in their colony more into conformity with those of the rest of the civilized world, and wish them every success in their undertaking.

PROSECUTION OF AN UNREGISTERED PRACTITIONER IN VICTORIA.

At the Police Court, Warrnambool (Victoria), on the 24th ult., a man named Paul Duflot was fined £15, with £7 costs, for having styled himself "Dr.," he not being a registered medical practitioner. He produced certificates, which he said he had obtained in Belgium and Pennsylvania, but they were stated to be of little value.

This person has been doing a lucrative practice, under the circumstances described, in New South Wales for some time without let or hindrance; but it is satisfactory to know that in the neighbouring colony, notwithstanding the defectiveness of its medical acts, he has been punished for his misrepresentation.

The public have a right to demand that a man shall not falsely proclaim himself to be a qualified medical practitioner with impunity; and this the medical bill, which has passed the Legislative Council and its second reading in the Legislative Assembly of New South Wales, will effectively provide for.

LETTERS TO THE EDITOR.

THE TREATMENT OF INTRA-ARTICULAR ADHESIONS BY FORCIBLE WRENCHING.—A REJOINDER.

(To the Editor of The Australasian Medical Gazette).

DEAR SIR,—Several months ago I published some notes on the treatment of intra-articular adhesions by forcible wrenching. In the course of the remarks I made on the subject, I ventured, in a perfectly courteous manner (as I then thought and as I think still) to dissent from certain opinions expressed by Dr. Albin Lurz in the July number of the *A. M. G.* This appears to have roused the ire of Dr. Lurz, who now relieves his feelings by writing a very ill-natured letter in which he aims at being satirical, but only succeeds in being offensive. I do not purpose following Dr. Lurz's lead in this direction, but will ask you to grant me sufficient space in which to review the whole position.

To go back to the beginning—In July, 1892, an article by Dr. Lurz appeared in the *Gazette* entitled, "Some Remarks on the Treatment of Joint Affections by means of the latest methods of Cure." It is not my intention to dwell on the merits of this paper, except so far as concerns the paragraph dealing with the "Sudden rupture of adhesions." This important subject is dismissed by Dr. Lurz in thirty-five lines, of which rather less than half can be said to have any bearing on the pathology or treatment of these cases. The article, however, throws some light on the mental attitude of Dr. Lurz. What can be that gentleman's opinion of the knowledge and intelligence of his professional brethren throughout Australasia when he considers it necessary to teach them that "massage is contra-indicated in *acute* cases of articular inflammation attended by fever, further in all forms of a *purulent* or *fungous* (*sic.*—P. J.) character? If my object in noticing Dr. Lurz's paper had been, as that gentleman irascibly supposes, to *carp* at his pathology, or at his language, I might have picked out many other stale truisms (or "chestnuts," as our American cousins would call them) more or less enigmatically expressed. However, at that time nothing was further from my mind than to *carp* at anything Dr. Lurz had said. The only feeling I had was that Dr. Lurz had expressed certain views as to the pathology and treatment of a certain form of joint disease, of which I had, only shortly before, had a somewhat striking instance, and which had been rapidly cured by the very means which Dr. Lurz condemned. I therefore felt justly entitled to express my dissent from Dr. Lurz's views, and the more so as I supported my contention by a successful case. Moreover, on looking over my own paper again I still fail to see anything in its tone or language calculated to give offence to any reasonable man. If you, sir, think that an apology is due on the score of anything offensive in my remarks, I shall be glad to furnish one without delay; until, then, however, I shall still maintain, *pace* Dr. Lurz, the attitude assumed in my previous paper.

Dr. Lurz first complains that I have misinterpreted the term "articular surfaces." I accept Dr. Lurz's explanation on this point, but I would refer him to "Erichsen's Surgery," 8th edition, vol. ii, p. 354, and to "Humphrey on the Skeleton," p. 73, by which he will see that "English" surgeons and anatomists commonly use the term articular surfaces as meaning the articular ends of bones.

Dr. Lurz next complains that I have misinterpreted the following sentence: "After all, the sudden tension of muscles and forcible rupture of adhesions are only justifiable when the stiffening is due to muscular contraction, or when it is our aim to attain a permanent fixation of the limb in a more useful position." This appears to be very clear and unambiguous, and yet I am told that I have misrepresented it. This argues the possession of a deplorable amount of original sin on my part, which, I am grieved to say, I do not see my way clear to divest myself of. Surely if the sentence in question means anything at all, it means that there are only two conditions under which the forcible method of treatment is justifiable, viz.:—

1. When the *stiffening* is due to muscular contraction.
2. When it is our aim to attain a permanent fixation of the limb in a more useful position.

The latter may be put out of the question, as it has absolutely nothing whatever to do with the class of cases I was discussing. Besides which, it can hardly be called a *curative* measure when it has for its object nothing better than the changing of one deformity for another of a less disabling character. Putting this aside, we are then left with only one condition, according to Dr. Lurz, under which forcible rupture is justifiable, viz., when the stiffening is due to muscular contraction. Upon this point I joined issue with Dr. Lurz, and I venture to think that my views are in accordance with the teachings of modern English surgery. I will not burden your pages by reproducing them here, but will refer any of your readers who may feel sufficient interest in the subject to my original article in the *A. M. G.* of October last. In his latest effusion Dr. Lurz condescends to explain, although I cannot see that his explanation throws much further light upon the subject. He says: "This sentence, too, has been misinterpreted by my critic, who in his anxiety to disprove my contention has not taken the trouble to think over it properly, for he puts the construction upon the sentence that I condemn the brisement forcè altogether, except in joint stiffness due to muscular contractions. This, however, is not true; on the contrary, in the latter part of the paragraph I direct attention to another kind of articular stiffness, depending on articular adhesions, shrinkage of the joint capsule and ligaments, &c., conditions of such gravity which offer little or no prospect of being favourably influenced by milder modes of treatment, and which, owing to their nature, are extremely awkward to the patient." If one read no more the inference would be irresistible that Dr. Lurz considered the forcible method the proper treatment to cure such a joint as he has described. In this view I imagine that few surgeons would agree with him. However, he goes on to say, "Thus, for example, I do not deny the suitability of the forcible method if the question should arise of improving the condition of an elbow joint ankylosed in extension, or of a knee joint stiffened in flexion, provided that all other available means had been previously attempted." So that, after all, I do not appear to have been guilty of much misrepresentation.

Dr. Lurz now comes to my unfortunate case, and at this point his indignation reaches a white heat, and he begins to apply to me that brisement forcè which he so emphatically condemns. He says: "I cannot for several reasons," all of which, with the exception of one, he carefully refrains from giving, "regard this case as evidence against the correctness of my contention that the brisement forcè is only *exceptionally* justified." Dr. Lurz here attempts to drag the proverbial red herring across the trail. No one, so far as I am aware, has ever attempted to maintain that it is anything but *exceptionally* justified. It is Dr. Lurz's statement of the exceptions that is objected to. I have already pointed out that Dr. Lurz only admits its justifiability as a *curative* measure in one class of cases, viz., stiffening from muscular contraction. Under the other condition it is not adopted as a *curative* measure, and is not intended to alter the *condition* of a joint, but its *position*, a vastly different thing.

The only reason Dr. Lurz deigns to give for refusing to accept my case as evidence against himself is the following: "that gentleman is uncertain about the real state of the joint." In support of this statement he quotes my words as follows: "It seemed clear that the diagnosis must be either contraction of tendons and ligaments, or intra-articular adhesions. Seeing that the movement of flexion was, so far as I could perceive, perfect, and that of extension nearly so, and holding in view the extreme severity of the pain, and the slight creaking that could be felt, the latter alternative appeared the more probable." For some purpose of his own Dr. Lurz breaks off in the middle of a sentence; had he been an honest antagonist Dr. Lurz would have quoted the whole sentence, instead of leaving out the final words "and the patient was advised accordingly." Truly the methods of Dr. Lurz are peculiar. On looking over my own words I fail to see that they indicate much uncertainty of mind; I admit that they are free from a certain dogmatic and "ex cathedra" air which adorns (?) the literary style of Dr. Lurz, but when read in conjunction with the closing words, which Dr. Lurz thought fit to suppress, I cannot agree that they show much uncertainty; on the contrary, they point to sufficient decision to recommend a very decided line of treatment. To wilfully misquote an adversary is a trick which I am content to allow Dr. Lurz a monopoly of.

This gentleman next proceeds to say that my diagnosis was wrong. There are certain gentlemen in Melbourne who apparently pride themselves on their capacity for making diagnoses *in absentia*. It is not so very long ago since one of these received a well-merited castigation in your pages at the hands of Dr. Humphrey Marten, of Adelaide, and now another one rushes in to display his skill in the same direction. He says: "Again the fact that the movement of flexion of the knee joint was perfect, and the extension movement nearly so, *is quite inconsistent with the existence of intra-articular adhesions*, at least to any great extent, as the latter would certainly not have allowed an almost unimpaired range of movement. At all events, whatever the cause of the patient's trouble may have been (it is a pity that Dr. Lurz with his powers of divination does not tell us what really was the matter—P. J.), it must be admitted that a joint whose movements are next to free cannot well become an object for a forcible rupture of adhesions."

He then comes to the conclusion that I recognized the truth of these views, and why forsooth? Because I spoke when discussing the treatment of forcible wrenching, and not of forcible rupture of adhesions. I should have thought that even Dr. Lurz would have recognized that "forcible wrenching" is "the act," and rupture of adhesions the "result of the act."

He then indulges in a short dissertation on the relative strength of expressions—a proceeding that savours somewhat of the ludicrous. Without wishing to wound the *amour propre* of Dr. Lurz, I really must decline to admit his competency to discuss the subtleties, the lights and shades, of the English language.

Having thus (as he thinks) crushed my diagnosis and duly asserted his claim to be considered a learned linguist, he goes on to deny that my operation (as he calls it) has any claims to be considered a "forcible wrench" on account of my small expenditure of force, and this he deduces from the fact that I used the term "rather forcibly extended the knee." If Dr. Lurz had had as much practical experience as he would have us believe, he would understand that, the patient being under chloroform and all muscular resistance totally abolished, the manipulation which I described would involve a considerable expenditure of force on the joint from the weight and leverage of the limb alone, even without much effort on the part of the surgeon.

My poor description seems to have overcome Dr. Lurz altogether. His excitement, which has been steadily rising, now culminates in one magnificent burst of satire, "How softly expressed!" Having painfully given birth to this scathing comment, he proceeds as follows:—"Logically, we must expect that Mr. James illustrates us (*sic*) an obstinate case of articular stiffness, which he cured by means of the brisement forcè—*a powerful manipulation during which the joint operated upon usually crashes in all its junctures*—and after all it turns out that the whole operation consisted merely of a rather forcible extension of the knee joint attended by a snap. (The italics are mine.—P. J.) At last we are beginning to see what Dr. Lurz means by brisement forcè—something which completely smashes up a joint. If Dr. Lurz had told us this at first, what trouble might have been avoided! We should never have dared to call our modest operation a forcible wrench unless the force used had been something like that of, say a steam hammer or a hydraulic crane. It is to be sincerely hoped that it is only on paper that Dr. Lurz treats muscular contraction by such a force as causes the joint to "crash in all its junctures." The term "brisement forcè" is not often used by English surgeons, the same manipulation being known under the names of forcible wrenching, forcible movements or surgical manipulation—terms which are used indifferently to express a procedure of the same nature as, but of more severity and suddenness, than the ordinary passive movements, so-called.

The boundary between ordinary passive movements and forcible wrenching must of necessity be an arbitrary one and difficult to define. For all practical purposes it is enough to say that passive movements are designed to restore the mobility of a joint by gradually stretching the structures which limit its movements; while forcible wrenching, on the other hand, aims at a more rapid cure by tearing these structures, be they bands or what not. Surely it is not beyond the credence of any practical surgeon that bands or adhesions may exist, which are of a very elastic nature, and which may evade cure by gradual passive movements, but which will readily yield to *sudden* and forcible movements. The *suddenness* of the procedure is a much more important element of its success than its force. (*Vide infra.*)

Dr. Lurz having thus presumed to call my diagnosis wrong, on the ground that adhesions cannot exist where the limitation of movement is as slight as it was in my case, let us hear what is said by someone who understands the subject.

Howard Marsh, a leading authority, in his work on "Diseases of Joints," after mentioning several cases in which stiff and painful joints were accidentally cured by falls, &c., goes on to say (pp. 222-3):—"Nevertheless, though many suugeons are fully alive to the value of manipulation, there are some who are still apt to let cases escape their notice which this method would readily cure, and who are therefore liable to have their surgery amended, either by a bone-setter, an infuriated cow, or a tumble downstairs; for, as I have shown, all these agencies may, by rupturing adhesions or rousing torpid muscles, effect a cure which no amount of rest, or liniment, or other form of masterly inactivity, will suffice to produce. A main influence in checking the use of manipulation has been the impression that the force employed may often do more harm than good.

"Undoubtedly this is a real danger unless care is taken in the selection of appropriate cases. Here, as in so many other instances, everything turns on a proper choice of cases, and the key to this lies in the fact that whenever a joint in itself is, or has been, seriously diseased, manipulation is generally either useless or mischievous, for no amount of force can restore the structures to a condition in which they can resume their functions, while any force that is used is very apt to provoke a renewal of disease. On the other hand there are numerous cases in which the joint itself is healthy or not materially damaged, though its movements are restricted by some abnormal conditions in the form of adhesions about the capsule, the sheaths of tendons, or the intermuscular, areolar tissue. These adhesions, although they are sufficient, through the pain they induce on movement, to prevent the use of the limb, are as slight and as easily ruptured as are the adhesions found *post-mortem* in cases of recent pleurisy or peritonitis. It is in these cases and in some other instances given below that manipulation is so strikingly successful. *Indeed it may be regarded as an axiom that the good to be obtained is in the great majority of cases inversely proportionate to the force that is required.*" (The italics are mine.—P. J.)

On the question of adhesions and impairment of movement, which Dr. Lurz is so dogmatic on, Marsh says (pp. 235-6):—"He took gas, and the ankle was flexed and extended. When flexion was being performed, some adhesions, which, however, were slight and offered scarcely any appreciable resistance, were felt to give way. He left the hospital an hour afterwards.

* * * * *

"The adhesions which disabled the joint were so slight that I failed to detect any limitation of movement, though I remembered what the former condition of the joint had been."

I commend the last sentence particularly to the notice of Dr. Lurz.

In conclusion, I would advise Dr. Lurz in future not to so readily forget the usual amenities of scientific controversy, and to discard such a dangerous weapon as satire. In clumsy hands it is not effective, and is apt to provoke replies which may not always be "softly expressed." I am, Sir, yours truly,

PHILIP JAMES, F.R.C.S. Eng.
Wellington, N.Z., March 1, 1893.

MEDICAL ETHICS.

◆

(To the Editor of The Australasian Medical Gazette.)

Dear Sir,—I am forwarding copies of a correspondence which has taken place between a fellow practitioner and myself concerning a question of medical etiquette, but in doing so it is necessary to explain the circumstances of the case.

I was in attendance on an infant, and had been so for several days, when it came to my ears that the parents, who were extremely anxious about the child, had sent for another medical man, without mentioning their intention to me, to give his opinion on the case. He came, and although he was told at once that I was in attendance, decided to see the case, and expressed an opinion without consulting me. Next morning I called upon the parents and asked for an explanation, which, so far as they were concerned, I was willing to accept as satisfactory. I thereupon wrote to Mr. Westbrook, M.R.C.S.E., L.A.H. Dubl., who is the medical man referred to, as follows:—

"Richmond, March 29, 1893.

"Dear Dr. Westbrook.—Mrs. —— informed me this morning that she sent for you yesterday to see her child, and although she told you on arrival that I was in attendance, you decided to see the child, and expressed an opinion on the case. I should like, in view of the future relations between ourselves, an explanation of this apparently-flagrant breach of medical etiquette. I am, yours truly,

"H. M. HELSHAM.

"P.S.—I have fully explained to Mr. and Mrs. —— my action in the matter, and the course I intended to pursue."

Next evening I received the following reply:—

"Parkhurst, Richmond, March 30, 1893.

"Dr. H. Macdonald Helsham,

"Dear Sir,—In reply to yours of 29th inst. *re* my attendance on Mrs. ——'s infant, the explanation I have to offer is as follows:—On Tuesday last at noon I received a message requesting my attendance at ——. On arrival I was informed that you had attended at the birth of the infant and subsequently; that owing to your gross ignorance and neglect you had been requested to discontinue in attendance. Thereupon I undertook the case. If in doing so I have acted unprofessionally kindly instruct me; but the idea of *your* attempting to teach me medical ethics is, to say the least, very amusing. In several instances I have refused to attend on cases of yours unless in consultation. *Re* J——'s child, as to our *future relations* allow me to express my indifference. At the same time I will not allow my professional etiquette to be challenged by anyone.

"Yours faithfully,
"R. TALBOT WESTBROOK."

On receipt of this letter I interviewed the parents, and they assured me the statement as to ignorance and neglect was utterly unfounded, and also the statement that I had been requested to discontinue in attendance equally false.

It is needless to say I shall in future refuse to meet Dr. Westbrook in consultation. I should like, Sir, an expression of opinion in your columns as to whether I am not perfectly justified in the stand I have taken.

Both letters are copies *seriatim*, with the names of the parents omitted. I am, &c.,

H. M. HELSHAM, M.R.C.S. Eng., L.R.C.P. Lond.
Richmond, N.S.W., April, 1893.

[We fully endorse the action Dr. Helsham has felt it advisable to take under the circumstances he details. We do not feel it necessary to express our opinion on the conduct of Dr. Westbrook, as his own letter more strongly condemns him than any editorial comments we could make.—Ed. *A. M. G.*]

Owing to the pressure on our space by the reports of the proceedings of societies, we are compelled to keep over a number of original contributions and letters to the Editor.

Assistant offers services for 3 months for board and lodging. Can visit, dispense, keep books, &c.
TRACHEA,
P. O. Wickham.

THE MONTH.

FIJI.

Dr. David Blyth, formerly Government Medical Officer at Levuka, has returned to Fiji from his trip to England, and entered upon private practice at Suva.

NEW SOUTH WALES.

The report on vaccination for the year 1892, compiled by Mr. Sager, Secretary of the Health Department, shows that 4,036 vaccinations were performed during the year, of which 4,001 were successful. Of the total number, 1,326 were performed in Sydney and its suburbs, and 2,675 in country districts. Vaccination was performed in only 24 country districts; in 81 districts in which there are Government vaccinators no vaccinations have been reported, and it is presumed that none have been performed. Of the successful cases, the patients in 373 were under 1 year; in 1,161 between 1 and five years; in 1,664 between 5 and 10 years; and in 803 upwards of 10 years of age. The unsuccessful cases were 35, or ·86 per cent. of the total number. The number of births registered in the colony during 1892 was 40,646, and the vaccinations give a percentage of 9·84 on this number.

The Eastern Medical Association gave a very successful smoke concert, or an "at home for consultation" as stated on the programme, at the Exchange Hotel, Sydney, on Friday night, April 28, when fully a hundred gentlemen were present by invitation. Drs. Laure, Marano, W. H. O'Neill, Edwards, and Messrs. Bagster and Nathan contributed songs, ably accompanied by Dr. G. L. O'Neill. Mr. Meikleham gave a very interesting "conjuring entertainment;" Mr. E. Lewis Scott a humorous speech and song, and Master Philip and Mons. Poussard contributed a duet on violin and piano. During the evening light refreshments were handed round, and everyone present enjoyed himself thoroughly. The executive officers of the E.M.A.—Drs. Mullins, Collins and Edwards—deserve great credit for having revived these jovial gatherings of the profession, and it is to be hoped that the other medical societies will imitate this praiseworthy example, and that such "at homes" may be given at regular intervals, as hinted in the following footnote on the programme: "Please retain this prescription until your next visit." The programme, designed by the Hon. Secretary (Dr. Mullins), was surrounded by appropriate quotations from Shakespeare, Longfellow, Byron, Milton and other poets, and attracted much attention.

A meeting of medical men was held at the Australia Hotel, Sydney, on April 12, for the purpose of forming the 'Sydney Medical Association.' The chair was taken by Dr. W. W. J. O'Reilly. After the rules and by-laws had been discussed and adopted, the election of office-bearers took place. The following gentlemen were elected:—President, Dr. P. Sydney Jones; Vice-president, Dr. T. Fiaschi; Council, Drs. Brownless, Crago, Hankins, G. A. Marshall, T. M. Martin and W. W. J. O'Reilly; Hon. Treasurer, Dr. A. J. Brady; Auditors, Drs. Gwynne-Hughes and Jas. McLeod; Officers of the Defence Fund—Trustees, Drs. Dagnall Clark, Coutie and F. H. Quaife; Committee, Drs. Carruthers, Collins, Jarvie Hood, MacSwinney and Muskett; Hon. Treasurer, Dr. Brady; Hon. Secretary, Dr. G. L. Mullins. The object of the defence fund is to protect medical men against vexatious actions at law arising out of the practice of their profession. This fund is open to all medical men throughout New South Wales on payment of the annual subscription of one guinea, provided they first join the Association as members or honarary members and subscribe to the rules and bylaws.

The Committee of the Newcastle Hospital, after an inquiry into the charges made by Dr. Cribb, Medical Superintendent of the institution, against Dr. Martin Doyle, one of the Honorary Surgeons, found that the charges made had been substantiated, and they decided to suspend Dr. Doyle for the remainder of the year.

A case of leprosy has been discovered in the George-street Asylum, Parramatta.

Drs. A. Jarvie Hood and **G. E. Rennie** have been elected Honorary Assistant Physicians, and Drs. R. S. Bowker and A. Watson Munro Honorary Assistant Surgeons, of the Sydney Hospital. There were 20 candidates for the four positions.

In the Legislative Assembly, on April 19, the salary of Professor Anderson Stuart as Health and Emigration Officer was reduced from £630 to £109 per annum.

It is with much regret that we record the death of Mr. Walter William Spencer, M.R.C.S. Eng. 1867, L.S.A. Lond. 1868, who died suddenly at Bathurst on May 1, at the age of 45 years. The deceased gentleman had practised at Bathurst for the last 23 years, and took a prominent part in everything for the welfare and advancement of the city and district. He was much esteemed by all classes of the community.

William Conynghame Ashe, L.R.C.S. Irel. 1879, formerly of Newcastle and Kiama, died at Coonamble on the 13th April.

Dr. C. O. Birch, late of Riverstone, has commenced practice at Liverpool, 22 miles S. of Sydney.

Dr. W. T. Chenhall, a Melbourne graduate, has commenced practice at Marrickville, a suburb of Sydney.

Dr. Iza Frances Coghlan has commenced practice at "Nithsdale," Liverpool-street, Sydney.

Dr. J. T. Dale has removed from Tumberumba to Lake Cudgellico.

Dr. T. S. Davies, late of Wedderburn (Vic.), has settled at Tocumwal, 449 miles S.W. of Sydney.

Dr. J. W. Hart, formerly of Gunning, has succeeded to the practice of Dr. R. Mead at Quirindi.

Dr. S. J. Richards, a Sydney graduate, has been appointed Resident Surgeon at the Sick Children's Hospital, Glebe Point, in the place of Dr. Leahy.

Mr. E. Stanley Tresidder, late of Glen Innes, has returned from his trip to England and commenced practice at Coonamble.

NEW ZEALAND.

An information has been issued against the House Surgeon of the Dunedin Hospital, charging him with a breach of the Anatomy Act in permitting the removal of a body within the 24 hours allowed by the law.

Dr. F. J. **Lostalot de Bachoue**, of Wellington, has been appointed Consul for France in New Zealand.

Dr. Walter Dickson, a recent arrival, has settled at Carterton, 62 miles N. E. of Wellington.

Dr. Henry Myles, a recent arrival, has settled at Kumara, 19 miles N. of Hokitika.

Dr. N. G. Trotter has removed from Woodlands to Tapanui, 96 miles W.S.W. of Dunedin.

QUEENSLAND.

We much regret to have to record the death of Mr. Thomas Sheppard Dyson, M.R.C.S.E. et L.S.A. Lond. 1879, who for the last eight years practised at Normanton, on the Gulf of Carpentaria. Dr. Dyson, who was staying at the Hotel Metropole, Thursday Island, waiting for the steamer "Avoca" to proceed to England, was found dead at daylight on April 29 outside the hotel. It is believed that he fell from the balcony. The deceased gentleman was for some years a surgeon in the British India Company's service.

Dr. M. Culpin, of Taringa, and Dr. J. C. Ellison, of Brisbane, were unsuccessful candidates at the last general election of members for the Legislative Assembly.

An exchange of practices for three months has been arranged (with the sanction of the respective hospital committees) between Dr. H. A. Francis, of Barcaldine, and Dr. E. H. Byrne, of Dalby.

Dr. J. Ahearne has been appointed Visiting Surgeon to the Penal Establishment at Townsville.

Dr. J. Cunningham has removed from Croydon to Normanton.

Dr. A. A. Doyle, late of Townsville, and formerly of Cooktown, has been appointed Surgeon of the hospital at St. George, in the place of Dr. Drew, resigned.

SOUTH AUSTRALIA.

Dr. D. T. Harbison, of the Adelaide Hospital, having won the single lawn tennis championship, has been presented with Sir E. T. Smith's presentation cup.

Dr. H. A. Sweetapple has commenced practice at Goodwood, near Adelaide.

TASMANIA.

Dr. J. Deans, of Hobart, has succeeded to the practice of Dr. A. J. Neale at New Norfolk.

VICTORIA.

At the Warrnambool Police Court, on April 24, Paul Duflot was fined £15 and £7 costs for practising as a doctor without being registered.

A writ has been issued against Dr. E. G. Ochiltree, of Ballarat, at the instance of Mr. Elsasser, for damages for an alleged unskilful operation. Damages are laid at £3,000.

Dr. G. E. Morrison, late Surgeon-superintendent of the Ballarat District Hospital, was made the recipient of an illuminated scroll address, signed by the leading citizens of the city, and accompanied by a purse of sovereigns, on April 21. He was also given a complimentary dinner by the Ballarat Club on the following evening.

We regret to have to announce the death of Mr. Edward Fletcher, M.R.C.S. Eng. 1846, a colonist of 31 years' standing, who died at his residence, at Lygon-street, Carlton (Melbourne), on the 24th April, in his 69th year. The deceased gentleman was formerly an Honorary Medical Officer of the Melbourne Orphan Asylum, and more recently he held the position of Public Vaccinator at the Royal Park Calf Lymph Depôt.

Dr. Stanley Argyle has commenced practice at Prahran, a suburban city near Melbourne.

Dr. W. H. Dutton has removed from Frankston to Northcote.

Dr. J. W. Gunst has resumed practice at Collins-street, Melbourne.

Dr. W. H. Johnstone has removed from Myrtleford to Coalville.

Dr. J. J. Kitchen, late of Hawthorn, has succeeded to Dr. Paton's practice at South Melbourne.

Dr. D. H. E. Lines has succeeded to the practice of Dr. Muir at Woodend.

Dr. G. F. Read, late of Plenty (Tas.), has settled at Toorak, near Melbourne.

Dr. C. J. Rutledge has commenced practice at Allendale, 90 miles N.W. of Melbourne.

Dr. H. Boase Wilson, late of Armadale, has taken Dr. Dutton's practice at Frankston.

WESTERN AUSTRALIA.

A severe outbreak of smallpox has occurred in Western Australia. Over 40 cases have been reported at Perth and neighbourhood, and one case at Albany Five cases terminated fatally.

Dr. C. W. Pardey, recently in charge of some smallpox patients at Petersburg (S.A.), has been engaged as Medical Officer of the Quarantine Station at Woodman's Point, near Fremantle.

BIRTHS, MARRIAGES, AND DEATHS.

⁂ The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

AITCHISON.—On the 10th April, at Albert Park, South Melbourne, the wife of Alexander S. Aitchison, M.B. Ch. B. Melb., of a son.

COXWELL.—On the 10th April, at Brighton, Vic., the wife of C. F. Coxwell, M.D., of a son.

GRANT.—On the 7th April, at East Melbourne, the wife of Dr. D. Grant, of a son.

LOOSLI.—On the 10th April, at Camberwell, Vic., the wife of Dr. R. J. Loosli, of a daughter.

McGINNESS.—On the 5th ult, at Numurkah, Vic., the wife of John McGinness, L.R.C.S.I., of a son.

STEVENSON.—On the 7th March, at Petersburg, S.A., the wife of James R. Stevenson, M.B., C.M., of a son.

THANE.—April 18, at Yass, N.S.W., the wife of P. T. Thane, L.R.C.P., of a son.

TRAVERS.—On the 16th April, at Armadale, Melbourne, the wife of Dr. G. F. Travers, of a son.

WEBB.—On the 25th February, at South Brisbane, the wife of Dr. W. S. Webb, of a daughter.

WILLIS.—On the 24th March, at Daylesford, Vic., the wife of T. R. H. Willis, M.B., Ch. B., of a son.

MARRIAGES.

DOYLE—HENRY.—At Townsville, Qu., on February 12, Andrew Aloysius McDonald Doyle, L.K.C.S., L.K.Q.C.P., youngest son of the late John Doyle, Mountjoy-square, to Mary Douglas, eldest daughter of Alfred Henry, of Townsville.

MAC DONNELL—HARDEN.—On the 10th April, at St. Paul's Cathedral, Rockhampton, Lucius G. A. Mac Donnell, M.B., of Aramac, Qu., to Nita, daughter of Carl Harden, Rockhampton.

M'ILROY—ROBERTS.—April 19, at Wagga Wagga, N.S.W., by the Rev. J. M'Intyre, John Black M'Ilroy, M.R.C.S., L.R.C.P. Lond., of Condobolin, to Phœbe Mary, second daughter of the late Charles Digby Roberts, of Bedford, England.

SCOTT-OCHILTREE.—On the 19th April, at the residence of the bride's father, by the Ven. Archdeacon Green, LL.D., Robert Scott, M.B., Ch. M., of Ballarat, Vic., eldest son of Robert Scott, "Mount Boninyong," to Elizabeth Annie, youngest daughter of W. B. Ochiltree, "Park Hill," Joyce's Creek.

STEWART—MILL.—On the 4th March, at Walhalla, Vic., by the Rev. John Standrin, John Stewart, L.R.C.S.I., to Sarah, second daughter of Robert Mill.

DEATHS.

HARSANT.—On March 21, at Onehunga, N.Z., Eliza, daughter of Dr. Harsant, in her 44th year.

MURRAY.—February 18, 1893, at Parkes, N.S.W., Henry Devenish, son of Dr. J. J. Goodlate Murray, aged 9 months.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

◆

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Robinson, Grace Fairley, M.B. *et* Ch. M. Sydney 1893.
Richards, Samuel Jabez, M.B. Sydney 1893.
Coghlan, Iza Frances Josephine, M.B. *et* Ch. M. Sydney 1893.
Vallack, Arthur Styles, M.B. *et* Ch. M. Sydney 1893.
Binney, Edward Harold, M.B. Sydney 1893.
Smith, Grafton Elliot, M.B. *et* Ch. M. Sydney 1893.
Litchfield, William Frederick, M.B. Sydney 1893.
Boelke, Paul W. R., M.B. *et* Ch. M. Sydney 1893.
Schlink, Rudolph, M.D. Berlin 1892; State Exam. Certif. Berlin 1892.
Cumming, William, M.B. Edin. 1883; M.D. Edin, 1885; M.S. Edin. 1888.
Chenhall, William Thomas, M.B. *et* Ch. B. Melb. 1892.
Duncan, Edward Hugh, M.B. *et* M.S. Edin. 1889.
Badham, Robert Charles, L.R.C.P. Lond. 1892; M.R.C.S. Eng. 1892

NEW ZEALAND.

Dickson, Walter, M.B. *et* Ch. M. Edin.
Harding, Harold William Litton, M.R.C.S. Eng. L.R.C.P. Lond.
Bull, Stanley Arthur, L.R.C.P. Lond., M.R.C.S. Eng. 1892.
Laidlaw, Robert, M.B. Edin.
McAdam, Kenneth, M.B. *et* B.S. Univ. of N.Z.
Torrance, James, M.B. *et* B.S. Univ. of N.Z.

SOUTH AUSTRALIA.

Sweetapple, Herbert Algar, M.B. *et* B.S. 1888, M.D. 1890 Durh.; L.R.C.P. Lond. 1889.
Elliot, Frederick John, M.R.C.S. Eng. 1879.

TASMANIA.

Adams, George Thomas Cooke, L. *et* L. Mid., R.C.P. *et* R.C.S. Edin.; L. *et* L. Mid., F.P.S. Glas. 1892.
Harbison, William Henry, L. *et* L. Mid., R.C.P. *et* R.C.S. Edin.; L.F.P.S. Glas. 1891.

VICTORIA.

Adams, George Thomas Cooke, L. *et* L. Mid., R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892.
Fitzgerald, Cornelius Gerald, L.R.C.S. Irel 1877; L. *et* L. Mid., R.Q.C.P. Irel. 1887.
Weigall, Gerald Carl, M.B. 1892, Ch. B. 1893 Melb.
Read, George Frederick, L. *et* L. Mid., R.C.P. *et* R.C.S. Edin. 1890; L.F.P.S. Glas. 1890.

MEDICAL APPOINTMENTS.

◆

Button, Horace Gooch, M.R.C.S.E., to be Government Medical Officer and Vaccinator for the district of Junee, N.S.W.

Church, Robert, M.B. Univ. N.Z., to be a Public Vaccinator for the District of Naseby, N.Z.

Cunningham, James, M.B. *et* Ch. M. Ed., to be Government Medical Officer and Health Officer at Normanton, Qn.

Gibbons, Charles Samuel, L.R.C.P. *et* R.C.S. Ed., to be Health Officer for the district of Zeehan, Tas.

Gregerson, William Jens, M.B., M.R.C.S.E., to be a Public Vaccinator in South Australia.

Harrold, Rowland Edward, M.B. *et* Ch. M. Ed., to be a Public Vaccinator in South Australia.

Hyde, John Galbraith, M.B., Toronto, L.R.C.P. *et* S. Ed., to be a Public Vaccinator for the district of Dunstan, N.Z.

Johnstone, William Henry, L. Med. and Surg. Dubl., to be Public Vaccinator at Coalville, Vic.

Kent, Charles George, M.B. *et* Ch. B. Melb., M.R.C.S.E., to be Government Medical Officer at Clermont, Qu.

McIlroy, John Black, L.R.C.P. Lond., M.R.C.S.E., to be Government Medical Officer and Vaccinator for the district of Condobolin, N.S.W.

Nicolls, Arthur George, L.R.C.S.I., L.R.C.P. Ed., to be a Public Vaccinator for the district of Arrow, N.Z.

Riley, Frederick Ratcliffe, M.R.C.S.E., L.R.C.P. Lond., to be a Public Vaccinator for the district of Winton, N.Z.

Robinson William Charles, L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glas., to be Government Medical Officer and Vaccinator for the district of Cobar, N.S.W.

Sweetapple, Herbert Algar, M.D. Durh., L.R.C.P. Lond., to be a Public Vaccinator in South Australia.

RECENT MEDICAL PUBLICATIONS.*

ENGLISH AND AMERICAN.

◆

Handbook of Pathological Anatomy and Histology, with an Introductory Section on *Post-mortem* Examinations and the Methods of Preserving and Examining Diseased Tissues. By Francis Delafield, M.D., LL.D., and T. Mitchell Prudden, M.D. Fourth revised and enlarged edition. One large octavo volume of 732 pages, with 300 wood engravings. 25s.

A Manual of Bacteriology. By George M. Sternberg, M.D. Part First: Classification, Morphology and General Bacteriological Technology. Part Second: General Biological Characters. Part Third: Pathogenic Bacteria. Part Fourth: Saprophytes. Bibliography. One royal octavo volume of 900 pages. Illustrated by four chromo-lithographic and photogravure plates, and 268 new wood engravings. 34s.

Text-book of Nervous Diseases, being a Compendium for the use of Students and Practitioners of Medicine. By Charles L. Dana, A.M., M.D. One volume, post-octavo, of 520 pages, illustrated by 210 wood engravings. 14s.

Human Embryology. By Charles Sedgwick Minot. Introduction: The Uterus, General Outline of Human Development. Part I: The Genital Products. Part II: The Germ Layers. Part III: The Embryo. Part IV: The Fœtal Appendages. Part V: The Fœtus. References. Complete in one royal octavo volume of 838 pages, illustrated by 463 wood engravings. 34s.

Diseases of the Chest, Throat and Nasal Cavities, including Physical Diagnosis and Diseases of the Lungs, Heart and Aorta, Laryngology and Diseases of the Pharynx, Larynx, Nose, Thyroid Gland, and Œsophagus. By Fletcher Ingals, A.M., M.D. Second revised and enlarged edition. One volume, octavo, 700 pages. 21s.

Essentials of Medical Diagnosis, arranged in the form of Questions and Answers. By S. Solis-Cohen, M.D., and Aug. E. Eshner, M.D. Illus. 6s. 6d.

Notes on the Newer Remedies, their therapeutic applications and modes of administration. By David Cerna, M.D. 5s.

Rest and Pain. By the late John Hilton, F.R.S., F.R.C.S., edited by W. H. A. Jacobson, M.B., M.Ch. Oxon. 5th edition. 9s.

Modern Materia Medica, with Therapeutic Notes, for the use of Practitioners and Students of Medicine. By Dr. Otto Roth; revised by Dr. Gregor Schmitt. 9s.

Treatise of Diseases of the Throat, with 3 col. plates and 125 woodcuts. By F. H. Bosworth, M.D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College, New York. 28s.

Naphey's Modern Therapeutics: General Medicine and Diseases of Children. By A. J. Smith, M.D., and J. A. Davis, M.D., 9th ed., revised and enlarged. 25s.

---

* All these books are stocked by L. Bruck, 13 Castlereagh-street, Sydney, the only medical bookseller in these colonies; postage extra, at the rate of 1s. 6d. in the £.

FIRST-CLASS PRACTICES in good country towns wanted by L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of New South Wales and Queensland on application to L. Bruck, Medical Agent, Sydney.

WANTED TO PURCHASE, *Lancet* and *British Medical Journal*, last 10 or 12 years to end of 1891. State lowest price to F. E. H., office of *A. M. Gazette*.

REPORTED MORTALITY FOR THE MONTH OF MARCH, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	252	156	82	...	2	2	...	1	18	11	4	11	7	...	3
Suburbs	275,615	871	305	174	...	1	3	2	7	28	13	17	14	9	...	1
NEW ZEALAND.																
Auckland	31,268	75	31	13	...	...	...	...	2	4	...	1	1	1	1	1
Christchurch	16,704	37	20	8	...	...	1	1	...	2	3	2	1	1	...	...
Dunedin	23,302	45	24	4	...	...	...	...	...	1	3	...	4	1	...	...
Wellington	33,786	92	29	11	...	...	...	...	5	1	2	3	2	1	...	1
QUEENSLAND.																
Brisbane	56,075	187	83	26	...	...	3	...	2	8	12	6	7	5	...	5
Suburbs	37,582	144	37	24												
SOUTH AUSTRALIA	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Adelaide	38,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TASMANIA.																
Hobart	35,143	107	53	19	...	...	...	...	1	3	3	5	5	4	...	2
Launceston	22,405	67	37	18	...	...	1	...	1	4	2	2	1	...	...	...
Country Districts	96,642	278	78	...	...	...	4	1	...	7	2	...	...	...	...	...
VICTORIA.																
Melbourne	71,881	112	81	331	...	2	2	3	21	39	65	42	46	19	1	7
Suburbs	417,304	1,241	615													
WESTERN AUSTRALIA*	59,718	475	223	91	...	...	7	1	5	21	7	10	18	7	..	...

* For the quarter ending March 31.

◆

METEOROLOGICAL OBSERVATIONS FOR MARCH, 1893.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. ; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	78·	62·3	44·	...	2·270	9	77	...
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	84·6	71·4	58·2	30·022	8·190	22	79	...
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	82·2	55·8	32·1	...	2·097	8	67	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	73·	52·1	37·	...	3·286	16	74	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	81·	59·8	39·	30·096	0·86	6	68	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	83·	63·6	37·	30·108	1·68	4	82	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	105·5	65·5	43·3	30·013	1·446	4	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	100·	73·	52·	30·059	1·71	8	65	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	81·3	67·6	54·8	30·165	10·01	22	82	N.E.
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° 47′ 25″ E.	...	71·	57·6	44·	...	7·215	13	70	...

OPHTHALMIC ATLAS,

FOR recording pathological conditions of the fundus by means of superimposed layers of colour, by

FRANK HAYDON,

Assistant Surgeon Western Ophthalmic Hospital, London; Clinical Assistant
Royal London Ophthalmic Hospital, Moorefields.

THIS, which is a very ingenious method of recording pathological conditions of fundus, consists of superimposed layers of colour, which can be erased by scraping, and thus shew the layer beneath.

The colours depicted are Orange, Red, Black and Enamel-white, these layers consisting of many coats of colour.

The layers are sufficiently thick so as to allow of any alteration in the size of a vessel without exposing the layer immediately beneath.

It is one of the simplest methods that could be devised, and should prove of the greatest possible value for those who wish to keep a record of the cases that come under their notice.

~~~~~~

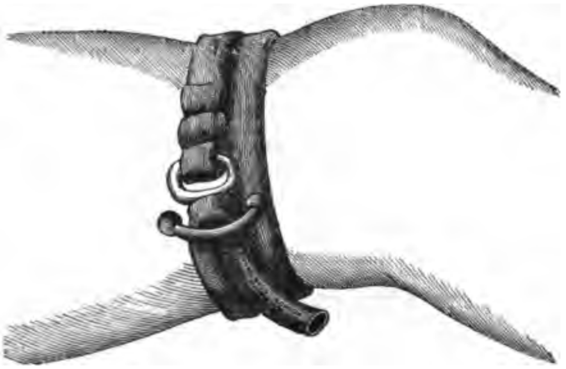
TWO new forms of Fasteners, for use with India-rubber Tourniquets, have lately been patented by

MESSRS. DOWN BROS.,

INSTRUMENT MAKERS of St. THOMAS'S ST., LONDON, S.E.

They are known as SAMWAYS' CLIPS, after Dr. Samways, of Guy's Hospital, the Inventor.

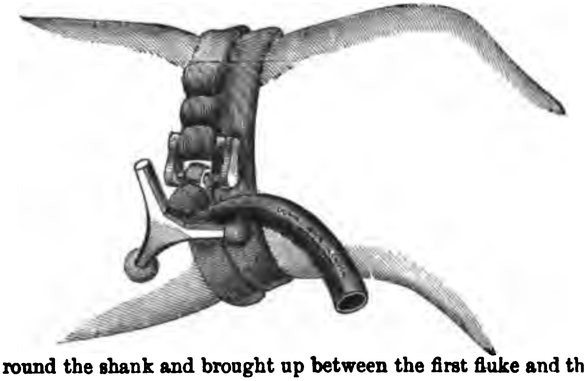
The simpler is shaped like an anchor, and is about an inch in total length. It differs from an anchor in that the ring is oblong, with its long axis transverse to the shank to which it is rigidly fastened. There is no stock, and the free ends of the flukes are knobbed instead of spade like.



To apply the Tourniquet the clip is held in one hand and the stretched rubber is carried once, twice or thrice round the limb, then passed beneath one of the anchor flukes over the shank and back beneath the other fluke and let go.

The accompanying diagram illustrates the "Anchor Clip" Tourniquet when applied.

The second form of Dr. SAMWAYS' CLIP is made to resemble a grapnel, and has three flukes instead of two.



The flukes are set at an angle of 120° to one another, and are slightly inclined towards the shank. The ends of two of the flukes are knobbed. The grapnel ring is oblong as in the "Anchor Clip" model, and the rubber is similarly attached permanently to it. The ring, however, is not rigidly fixed to the shank.

To apply the Grapnel Tourniquet the clip is held in one hand with the two knobbed flukes pointing down towards the limb; the stretched rubber tubing is then carried once, twice or thrice round the limb, passed beneath one of the knobbed flukes over the shank and out beneath the other knobbed fluke and let go. The fastening may be held still more secure if the rubber, instead of being let out beneath the second fluke, is passed, as in the diagram, further round the shank and brought up between the first fluke and the rubber.

The advantages claimed for the clips are:—

1. They are small and light.
2. They are simple and cannot get out of order.
3. They are very quickly applied or removed.
4. The tighter the rubber is applied round the limb the more securely the clip holds it.
5. The clip does not cut the rubber.
6. The clip fastens equally well at any point along the length of the rubber.
~~~~~~

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

RECENT WORK ON THE PATHOLOGY OF CANCER.

Read before the Medical Section of the Royal Society of N.S.W.

By G. E. Rennie, M.D. Lond., M.R.C.S.E., Pathologist to Prince Alfred Hospital, Sydney.

(*Continued from page 109.*)

As still bearing upon the parasitic theory of cancer I would next briefly refer to the evidence, both clinical and experimental, which has been adduced with regard to the inoculability of malignant growths in man and animals.

(1) *Clinical.*—Instances are on record of the infection of one labium from a cancerous ulcer on the other; also of cases of cancerous infection of the skin of the arm from contact with an ulcerating scirrhus of the breast. There is a very interesting case on record which occurred in St. Thomas' Hospital under Dr. Ord. The patient was suffering from cancer of the œsophagus, and was treated for several weeks by catheterization. *Post-mortem*, it was found that the prominent portions of the rugæ were the seat of secondary cancerous deposits, suggesting that they had been directly inoculated with the infecting material of the primary growth by the passage of the bougie. Further, several cases are recorded of patients suffering from cancer of the penis, whose wives have had cancer of the cervix uteri. These cases certainly afford fair proof of the local inoculability to a squamous epitheliomata.

(2) *Experimental.*—Numerous experiments have been made within the last few years with a view of determining the inoculability of cancerous growths on man and animals. The first supposed successful inoculation was made by Langenbeck. He triturated pieces of fresh cancer with distilled water, and injected the fluid into the jugular vein of a dog. Two months later two nodules, said to be cancerous, were found in the lungs.

Follin and Lebert did the same, and in their experiments the animals died two weeks after inoculation, and, *post-mortem*, a few firm elastic nodules the size of a pea were found in the heart, and numerous smaller ones the size of a pin's head in the liver. The absence of accurate histological examination of these nodules minimizes the value of the experiments, apart from the fact that the clinical history of the animals thus inoculated did not correspond with that observed in cases of cancer in the human subject. Similar experiments were made by Bilroth, Maas, Doutrelepont, Albert and others, but all with negative results.

Senger, under strict antiseptic precautions, made implantation experiments of cancerous tissue in mice, rabbits and dogs; and on examining the site of implantation at different times, noticed that the malignant grafts were in process of absorption, or had disappeared completely, leaving only a cicatrix at the point where it had been embedded.

Senn made numerous transplantation experiments of carcinoma and sarcoma from man to animals, such as dogs, cats, rabbits, guinea-pigs, &c. A piece of tissue the size of a pea was taken from the periphery of the malignant tumour and inserted under the skin of an animal, usually in the inguinal region. In all cases in from three to four weeks the graft was absorbed, and only a subcutaneous cicatrix remained. A similar result ensued in his attempt to transplant a piece of sarcoma from the jaw of a dog to other dogs. Finally, in a case of carcinoma of the leg in a man who refused amputation, he removed a piece of the growth, the size of a peach stone, and inserted it through a small incision into the connective tissue over the posterior aspect of the leg, and the skin sutured over it. Gradual absorption of the graft ensued in a few days, and at the end of four weeks it had entirely disappeared.

Weber transplanted grafts of vaginal carcinoma from one dog to the abdomen of another. The grafts at first increased in size, but then decreased, and in six to eight weeks they had entirely disappeared.

Hanau, of Zurich, succeeded in transplanting squamous epithelioma of the vulva in a rat to a series of other rats; and Eiselberg also successfully grafted a fibrio-sarcoma from one rat to another.

At a meeting of the German Congress of Surgeons in 1888, Hahn described an experiment he had made on a case of recurrent carcinoma of the breast. The breast had been amputated, and recurrence had taken place, with formation of several nodules in the skin. He transplanted six of these nodules to the healthy breast. All the grafts continued to increase in size up to time of death. Ten weeks later new nodules formed around the grafts, and on examination these were found to consist of true cancerous formation.

Ballance and Shattock have detailed an extensive series of experiments in transplantation of pieces of human cancer to various kinds of animals, such as monkeys, dogs, rats, cats, sheep, &c., but in all cases with negative results. Portions of tumours while still warm were taken and placed in the peritoneal cavity, under the skin and deep in the muscles. On those animals which died or which were killed, in some cases hundreds of days after the operation, the pieces of tumour, if small, were found nearly or quite absorbed; if large, an inflammatory capsule had been formed around them, the piece of tumour itself being in a condition of coagulation necrosis, and in no case had any growth taken place. Besides these trasplantation experiments they fed two white rats with portions of fresh cancers of the breast for seven months. The rats remained well, and on killing them no trace of cancerous growth was detected. In referring to these experiments they remark as follows:—"For the transference of carcinoma or sarcoma it would appear necessary that the tissue introduced should itself live, and that this was as requisite as was the introduction of the hypothetical contagion. The grafting of infective tumours from the human subject to the lower animals would on this account fail. The graft would as surely die as did the corpuscles of lambs' blood when transfused into the human subject."

Klebs carried out a series of transplantation experiments with a view of determining the nature of the structures which had been described as organisms in cancerous tissue. He argued that if these structures were organisms, then when the cells in the graft perished they would be set free, and in a state well fitted to excite the new growth of cancer. As all his experiments failed, he concluded that these structures could not be organisms.

Dr. Sims Woodhead in his recent Morton lecture has shown that this argument is fallacious. He says: "As soon as the epithelial cells disappear the coccidia have nothing on which they can subsist, or in which they can grow, and they immediately undergo degenerative changes, and are removed just as were the epithelial cells. Even under the most favourable conditions for their growth and development they appear to be able to continue their existence only when protected from the connective tissue by the proliferating epithelium in which they are lodged. It is little wonder, therefore, that inoculation experiments have not succeeded." While, then, there is a certain amount of clinical evidence in support of the inoculability of cancer, the experimental evidence so far is very slight.

In conclusion, we have seen that there is no trustworthy evidence of cancer being caused by any bacterial growth, and the theory of its being due to infection of epithelial cells by protozoa is at present "not proven." It seems pretty certain that cancer is sometimes caused by simple irritation; chimney sweeps' cancer of the scrotum, and the so-called paraffin cancer in paraffin workers, are well known instances of this. But even in these cases it would seem as if some other factor were necessary, else why should not such irritation lead to simple epithelial proliferation, such as we find in corns? The theory advanced some years ago by Thiersch that cancer depends upon a disturbance of the histogenetic equilibrium between the epithelium and the connective tissue, was based on the observation that cancer is specially a disease of middle and advanced life. He showed that the vital activity of epithelium was greater than that of the connective tissues, and this disproportion was intensified as age advances. This would account for the ready invasion of the deeper connective tissues by epithelium, but is not sufficient to account for the epithelial proliferation. Recent observations by Dr. Sims Woodhead on the condition of the tongue at different periods of life strongly support this theory. He has shewn that as age advances the activity of the sub-epithelial tissues diminish, while that of the epithelium increases: "the masses of epithelial cells instead of being simple are more or less ramified, small, finger-like processes passing down from the main column into the connective tissue spaces until, in some cases, one might almost imagine we were examining an epithelioma." If to a part where such disturbance of the histogenetic equilibrium between the connective tissues and epithelium exists, some irritant capable of exciting epithelial proliferation be applied, then we have all the conditions necessary for the development of a cancer. It seems probable that the exciting cause of the epithelial proliferation may not be the same in every case of cancer. At a time of life when disturbance of the histogenetic equilibrium occurs a slight degree of mechanical irritation, if long continued, may be sufficient to excite cancerous growth, as, *e.g.*, in cases of epithelioma of the lip, caused by the irritation of a clay pipe. But while cancer occurs more frequently in middle and old age, yet it is sometimes met with in patients even under 30 years, at a time of life when the vital activity of epithelium and connective tissues are in equilibrium. In such cases it is possible that infection of the epithelial cells by organisms such as coccidia may be the immediate exciting cause of the cancerous growth, especially where there has been no mechanical irritant applied. At any rate, the presence in the epithelial cells of organisms which are known to have the power of exciting proliferation in other circumstances must, I think, have some important relationship to the causation of cancer; and further investigation of the nature and life history of these parasitic protozoa will probably in the near future bring us nearer the desired goal of knowing fully the true cause or causes of cancer, and, let us hope, will enable us to deal more effectually with a disease which at present is such a scourge to the human race.

BIBLIOGRAPHY.

January, 1887, to June, 1892.

1887.

Ballance and Shattock.—Trans. Path. Soc. Lond.

Scheuerlen. — "Die Ætiologie des Carcinoms." Deutsch. Med. Wochenschrift, S. 1033.

Arnold.—"Ueber Theilungsvorgänge an den Wanderzellen, ihre progressiven und regressiven Metamorphosen." Arch. f. mikr. Anat. Bd. XXX.

Manille Ide.—Arch. f. Exper. Path. und Pharmak. Bd. XXVIII, S. 432.

Francke.—"Ueber Ætiologie und Diagnose von Sarkom und Carcinom." Münch. Med. Wochenschr.

Paget, Sir James.—"Morton Lecture on Cancer and Cancerous Diseases."

Schill.—"Ueber den regelmässigen Befund von Doppelpunkstäbchen in Carcinomatösen und Sarkomatösen Geschwülsten." Deutsch. Med. Wochenschrift, I.

1888.

Wells, Sir Spencer.—Morton Lecture.

Neisser.—"Ueber das Epithelioma (S. Molluscum) contagïosum." Zeitschrift f. Dermatol. und Syph. Bd. IV.

Ballance and Shattock.—Trans. Path. Soc. Lond.

Pfeiffer.—"Der Scheuerlen's che Krebsbacillus ein Saprophyt." Deutsch. Med. Wochens.

Baumgarten. — "Ueber Scheuerlen's Carcinom bacillus." Centralblatt f. Bakteriol. und Parasitenkunde. Bd. III, 13.

Senger.—"Studien zur Ætiologie des Carcinoms." Berlin Klin. Wochenschr.

Hahn.—"Ueber Transplantation von Carcinomatösen Haut." Berlin Klin. Wochenschr.

Rosenthal.—"Untersuchungen über das Vorkommen von Mikro-organismen in Geschwülsten, namentlich carcinom, mit, besonderer Berücksichtigung des Scheuerlen'schen Carcinom bacillus." Zeitschrift. f. Hygiene. Bd. V.

Van Ermengem.—"Etiologie du Cancer. Le bacille de Scheuerlen." Extrait de Bulletin des Séances de la Societe belge de Microscopie. Séance du 28 I., 1888, et du 31, III.

Verf.—"Ueber Scheuerlen's Carcinombacillus." Centralbl. f. Bakter. u. Parasitenkunde. Bd. III.

Makara.—"Untersuchungen über die Ætiologie des Carcinoms." Deut. Med. Wochenschr.

Fortes.—"Carcinom und Sarkom." Coburg, 1888. Quoted by Baumgarten.

Freire.—"Brieffliche Mittheilung an geh. Rath. Leyden seine Krebsforschungen betreffend." Deut. Med. Wochenschr.

Lampiasi Rubino.—"Sulla natura parasitaria dei Tumori Cancerosi." La Riforma Med. Gennajo.

1889.

Zahn.—"Beiträge zur Ætiologie der Epithelialkrebse." Virch. Archiv. Bd. 117, p. 37.

Zahn.—"Beiträge zur Histogenese der Carcinoma." Virch. Archiv. Bd. 117, p. 209.

Klebs.—"Allgemein Pathologie." Jena.

Ropke.—"Beiträge zur Ætiologie der Œsophagus Carcinom." Inaug. Dissert., Kiel.

Zenker.—"Der primäre Krebs der Gallenblase und seine Beziehung zu Gallenstein und Gallenblasennarben." Deut. Arch. f. Klin. Med. Bd. 44.

Plicque.—"Les Tumeurs chez les Animaux." Revue de Chirurg. T. IX.

Chaintre-Armand.—"De l'epithelioma des cicatrices." Gaz. Med. de Paris. N. 17-22.

Marshall, John.—Morton Lecture.

Albarran.—"Sur les Tumeurs epitheliales contenant les psorospermies." Sem. Médical. N. 15.

Michaux.—"De la Contagion du Cancer." Sem. Méd. N. 29.

Darier.—"Sur une nouvelle forme de psorospermose cutanée, ou Maladie de Paget." Soc. de Biologie, 13 Avril.

Thoma.—"Ueber eigenartige parasitäre organismen in den Epithelzellen der Carcinome." Fortschr. d. Med. Bd. 7, N. 11.

Hanan.—"Erfolgreiche experimentelle Uebertragung von Carcinom." Fortschr. d. Med. Bd. 7, N. 9.

Verneuil.—"Proprietés pathogénes des microbes venfermés dans les Tumeurs malignes." Rev. d. Chirurg. IX.

Schimmelbusch.—"Ueber multiple auftreten primären Carcinome." Archv. f. Klin. Chirurg. Bd. 39, Heft 4.

Senn.—"Surgical Bacteriology." Pentland. Edin.

1890.

Kubasoff.—"Ueber die Mikro-organismen der Krebsbildungen." Wien. Med. Press. Jahrg. 31. N. 29-33.

Israel, O.—"Ueber die ersten Anfänge des Magenkrebses." Berlin. Klin. Wochenschr. N. 29.

Klebs.—"Ueber des Wesen und die Erkennung der Carcinombildung." Deut. Med. Wochenschr.

Schütz.—"Mikroskopische Carcinombefund." Frankfurt.

Hansemann.—"Ueber asymmetrische Zelltheilung in Epithelkrebsen und deren biologische Bedentung." Virch. Arch. Bd. 119.

Hauser.—"Des Cylinderepithelcarcinom des Magens und des Dickdarms." Jena.

Wickham.—"Maladie de Paget." Arch. d. Med. Exper. II.

Malassez.—"Sur les nouvelles psorospermoses chez l'homme." Arch. d. Med. Exper. II.

Sjöbring Nils.—"Ein parasitären protozoenartigen organismus in Carcinomen." Fortschr. d. Med. N. 14.

Heukelom Siegenbeck, Van.—"Intracelluläre gebilde in Carcinomen." Centralbl. f. Allg. Path. und Path. Anat. N. 22.

Firket.—"Ueber eigenthümliche Veränderungen der Epidermis," &c. Centr. f. Allg. Path. u. Path. Anat. N. 20.

Schütz.—"Ueber die protozoen und coccidienartigen mikro-organismen in Krebszellen." Münch. Med. Wochenschr. No. 35.

Borrel.—"Sur la signification des Figures décrites comme coccidies dans les Epithéliomes." Arch. d. Med. Expt. II.

Wright, Ramsay.—"Pathogenic Sporozoa." Address at opening of new building of the Biological Department, Univ. of Toronto. Toronto.

Russell.—"Address on a characteristic organism in Cancer." Brit. Med. Jour. No. 1563.

Klemperer.—"Der Kohlensäure-Gehalt des Blutes bei Krebskranken." Charité Ann. Berlin XV.

Hache.—"Les coccidies dans le cancer-epitheliome." Compt. Rend. Soc. de Biol. Paris II.

Ballance and Shattock.—Proc. Roy. Soc. Lond.

Eiselberg.—Wien. Klin. Woch.

Torök and Tommasoli.—"À propos d'un nouveau cas de psorospermose folliculaire." Ann. de Dermatologie et Syphilographie.

1891.

Ballance and Shattock.—"A short record of work done on Pathology of Cancer during last few years." Brit. Med. Jour. No. 1,576.

Ohloff.—"Ueber Epithelmetaplasie und Krebsbildung." Greifswald.

Hansemann. — "Ueber Pathologische Mitosen." Virch. Archiv. Bd. 123.

Schleich.—"Infektion und Geschwülstbildung." Deut. Med. Wochen.

Steinhaus.—"Ueber Carcinom Einschlüsse." Virch. Archiv. Bd. 126, 127.

Steinhaus.—"Ueber abnorme Einschlüsse in den Zellkernen menschlichen Gewebe." Centr. f. Allg. Path. und Path. Anat. Bd. 11, No. 14.

Gibbes.—"Pathology of Carcinoma." Therap. Gaz. Detroit. Pp. 436-445.

Holmes.—"An Argument for the infectious and parasitic nature of Carcinoma." N. Amer. Practitioner. Chicago.

Stræbe.—"Neuere Arbeiten über Histogenese und Ætiologie des Carcinoms." Centr. f. Allg. Path. u. Path. Anat. Bd. 11.

Van Beneden—"Sur le developpement du carcinom-epitheliæ." Ann. Soc. Med. Chirurg. de Liege, XXX.

Ballance and Shattock.—Med. Press and Circular, LII.

Williams.—"Pathogeny of Cancer." Lancet. V. 2.

Ribbert.—"Ueber Einschlüsse im Epithel. de Carcinom." Deut. Med. Woch., XVII.

Klemperer.—"Stoffwechsel Versuche an Krebskranken." Charité Ann. Berlin, XVI.

Ribbert.—"Neuere Arbeiten zur Ætiologie des Carcinoms." Deut. Med. Woch., XVII.

Warren.—"Parasitic origin of Cancer." Boston Med. and Surg. Journal, CXXV.

Kanthack.—"A Characteristic Organism of Cancer." Brit. Med. Jour. Vol. I.

Dean.—"Russell's organism of Cancer." Lancet. Vol. I.

Edington.—"Hyaline Degeneration in Cancer Cells." Brit. Med. Jour. Vol. I.

Ballance and Shattock.—"Cancer as an Infective Disease." Brit. Med. Jour. Vol. II.

Delépine Sheridan.—"Psorospermosis as a possible cause of Epithelial Tumours." Brit. Med. Jour. Vol. II.

Duplay and Cazin.—"Coccidia and Cancer." Brit. Med. Jour. Vol. II.

1892—UP TO JUNE.

Virchow.—"Bemerkungen über die Carcinomzellen Einschlüsse." Virch. Archiv. Bd. 127, Heft I.

Cazin.—"La Theorie Parasitäre du Carcinom." Rev. Crit. Arch. Gén. de Med. Paris, I., 70-90.

Fischel.—"Uebertragungsversuche mit Sarkom und Krebsgewebe des Menschen auf. Thiere." Fortsch de Med. Berlin, X.

Fleming.—"Paget's Disease of the Nipple." Glas. Med. Jour.

Soudakewitch.—"Intracellular Parasites in Cancerous Neoplasms." Ann. de l'Institut. Past. March.

Næggerath.—"Beiträge zur Struktur und Entwickelung des Carcinoms." Wiesbaden.

Woodhead, Sims.—Morton Lecture. Brit. Med. Jour. Vol. I.

Podwyssozki und Sawtschenko.—"Intracellular parasites in Cancer." Centr. f. Bakt. u. Parasit. Bd. XI., Nos. 16, 17, 18.

A NOTE ON THE DIAGNOSIS OF TUBERCULAR MENINGITIS.

By ANGEL MONEY, M.D., F.R.C.P. LOND.

EVERY textbook of medicine refers prominently to the difficulty of diagnosing some cases of tubercular meningitis, but little attention has been drawn to the value of the reflexes. In cases of doubt I believe an appeal to the condition of the reflex actions during the course of the disease will sometimes prove of signal service in diagnosis. The reflexes are altered in cases of simple inflammatory fever and enteric fever, but the alterations are fairly definite; the knee-jerks are increased, and an ankle clonus may be obtained. The superficial reflexes are also increased. The deep reflexes in the arms are apt to be developed or exaggerated if normally present. These changes are usually symmetrical on the two sides of the body. The knee-jerks are never lost in uncomplicated cases of inflammatory or continued fever whilst the pyrexia lasts.

In meningitis an increase in the activity of the reflexes may be present, and frequently it is found that there is a loss or diminution of some of them. In a doubtful case, in which the diagnosis rests between tubercular meningitis and typhoid fever, the absence of the knee-jerk tells in favour of the former; and this absence is very strong evidence of tubercular meningitis if the knee-jerk on the other side is exaggerated, or if there is ankle clonus on the same or the other side. I have notes of many cases of tubercular meningitis in which this unusual combination of lost knee-jerk, with fairly marked ankle clonus, obtained. I have never met this combination in a case of enteric fever.

In two other cases of tubercular meningitis, completed by an autopsy, the superficial and deep reflexes on one side of the body have been totally lost, whilst those on the other side were decidedly exaggerated. In an infant aged 15 months the side on which the reflexes were exaggerated subsequently became hemiplegic. This was also the case in a girl aged two-and-a-half, which I saw with Dr. Dagnall Clark, but there was no autopsy. In a case of hemiplegia in an infant aged 10 months, reported in the "Clinical Society's Transactions" in 1884, a vascular lesion was found, thrombosis of a branch of the middle cerebral artery complicating the signs of tubercular meningitis.

The case reported by Dr. Shewen in *The Australasian Medical Gazette* for January, presented an insensibility of the right side of the body, followed by hemiplegia, the knee-jerk being absent, but a distinct ankle clonus present. It will be noted that in the case referred to above the hemiplegia supervened on that side on which there was a greater sensibility. One observed that raising the left eyelid for ophthalmoscopic examination caused the child to wake up and and show resentment, whereas the right eyelid could be raised and the eye examined without any notice being taken of the procedure by the patient.

205 Macquarie-street,
Sydney, May, 1893.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

Read before the Medico-Ethical Association of Queensland.

By Wilton Love, M.B. et C.M. Ed.

Into the hands of the medical profession has been entrusted the physical well-being of the community, not only as far as the cure of those ills to which flesh is heir, but we must also warn against the many-headed monster disease in all its forms; and the prevention of the spread of zymotic disease is a subject which is worthy the efforts of every member of that profession.

The statutes of every civilized country now insist upon the registration of births and deaths, but from a practical point of view it is surely more useful to the community at large that they should be made aware of a threatening epidemic in their midst, and the necessary steps be taken to strangle it in its infancy. It is surely more useful to the public that they should know that typhoid is being disseminated from a particular dairy than that they should be in possession of the number of deaths from typhoid in the past 12 months. Such advantages, and many others I shall hope to show, may be the results, directly or indirectly, of a rational system of notification. The subject is one which must sooner or later demand attention in these Australian colonies. The spread of sanitary science will not allow us much longer to say of every case of typhoid and diphtheria, "Kismet! it is the will of Allah"; for that is practically the attitude of the profession towards these diseases at present.

I propose to consider the subject of compulsory notification under two sections:—

1. As to the advisability, including the results, which the system has already produced where it has been in operation.

2. As to the feasibility and the best methods to be adopted.

I would here premise that what is meant by compulsory notification is "*the immediate notification to the sanitary authority of the occurrence of a case of infectious disease, a penalty being attached for neglect of such timely notification.*" The diseases included are usually the seven zymotics—cholera, smallpox, typhus, typhoid, diphtheria, scarlet fever and measles, while erysipelas, whooping-cough and puerperal fever are occasionally included.

1. As to the *advisability* of compulsory notification: It seems to me that quarantine, federal or isolated, is closely allied to notification. The object of both is the same, and the arguments in favour of quarantine hold equally for notification. Let me quote here from the inaugural address of Dr. Verco at the First Intercolonial Congress:—"Coming, as our enterprising forefathers did, a three or four months' voyage over a disinfecting sea, they left many of the terrible scourges of humanity behind. The plagues of the olden time and of the new are largely only names and phantoms among us. Hydrophobia, the sweating sickness, relapsing fever, typhus and cholera have never from their shrivelled lips breathed pestilence and death over our fair land. Now and again a foul form is seen prowling at our doors; the people are anxiously uneasy at the threatening danger, but hitherto the monster has been strangled on our threshold. I ask, is not the heritage we enjoy in our freedom from these plagues a special boon? Does it not involve in common prudence a special duty, a special vigilance? And since our communication with the old world has become more rapid—and hence the liability to the importation of infection increased—and our intercommunication is more effective and more speedy, and hence the distribution of infection greatly facilitated—is there not special need for concerted intercolonial action—for discussion amongst ourselves of such subjects as federal quarantine"—and compulsory notification?

"And how is this emphasized by the virulence and wildfire spread which characterizes infectious diseases in tropical and sub-tropical regions, and still more by the fact that it is in the domain of preventive medicine that the grandest victories of late years have been gained; and if I can read the times aright, it is in the department of preventive medicine that the largest, if not the most brilliant, triumphs will yet be won."

The early discovery of infectious diseases to a local authority is like the early notification of a fire at a fire station, whereby a conflagration, which might otherwise lay a city in ashes, can be prevented if the warning be sufficiently timely. "A spark is a molecule of matter which may kindle a world."

The Registrar-General for Great Britain shows how sanitary or preventive medicine has reduced the death rate. In the latter half of the last century, from what imperfect records exist, we estimate that the death rate of London must have been at least 70 per 1,000 per annum—an appalling figure to us now-a-days. The death rate of London in 1878 was 23·5. The death rate from 1838-70 was 22·4 on an average, or a perpetual decrease during that period. The mortality for the decade 1871-80 was 21·7, which is lower than in any preceding decennium since civil registration began. This diminuendo scale has also been marked in the years following 1880, *e.g.*, in 1883 it was 19·5; 1884, 19·6; 1886, 19, or an average mean death rate of 19·3 for the first half of the last decade. To put it in another way, the old Norwich life table, based on the mortality of 1838-54, gave the mean expectation of life for males 39·6, for females 41·85 years, while a life table, based on the mortality of 1871-80, gives the mean expectation of life for males 41·35, for females 44·62, *i.e.*, an increase of 1·44 years for males and 2·77 years for females. This remarkable result has been due to the improvements in sanitary and medical science. Undoubtedly the greater share in it has been due to preventive rather than curative improvements; and my contention is that the early discovery and suppression of zymotic disease as it becomes more perfectly carried out is a factor which will go far to improve the remarkable average given above.

Let us glance for a moment at the origin of the compulsory notification movement. The first good experiments came from Manchester and Marylebone. The Society of the Medical Officers of Health recommended the same system, but not till it had been in operation for some years in these places. The Manchester Association published a weekly return of all new cases of disease coming under treatment at the various medical institutions in Manchester and Salford. These returns gave timely warning of the foci from whence it might be expected that infectious disease would spread.

From these small beginnings the system has spread till it is statute law in several of the continental countries and in 68 of the largest towns in Great Britain. It has even been put into action in a limited degree in Brisbane during the late scarlet fever epidemic.

COMPULSORY V. VOLUNTARY.

Various experiments as to the *voluntary* notification have resulted in total failure, as might be expected, for nothing short of a complete return would be of avail, and this could only be secured by State compulsion; thus, in 1883 only 113 out of 300 practitioners in a large town in England voluntarily notified. The voluntary system answers very well in the case of cholera, because the alarm is so great that it is practically compulsory, or in other words, that result is effected by fear which is denied by reason. But in the case of a disease of which there is no fear, *e.g.*, scarlet fever, though it is a thousand times more destructive to life, the voluntary system breaks down altogether. Instead of the medical man reporting every case of preventible disease, he reports only such as he chooses. He will report, for instance, the case of a domestic servant, whose presence in a large and respectable family is considered objectionable, and whose removal is therefore to be desired, and she is removed to the hospital accordingly; but the next case he may for special but insufficient reasons omit to notify, although the danger to the public may be as great in the one case as in the other.

Hence notification to be of any real value must not be optional, but imperative. Again, it must be immediate. In Birmingham, where the optional system is in vogue, the Health Officer reports that he frequently receives notification of zymotic diseases after the medical man has been in attendance for several weeks, and sometimes after the death of the patient, although there is a fee of 5s. attached to each notification. To expect efficient, *i.e.*, to say complete notification by voluntary means is to ignore all past experience, and to display a credulity which would discredit an intelligent child.

The one great objection to notification comes from those who hold that the adage "An Englishman's house is his castle" overrides even the advantages of notification. They object to have their infectious diseases brought under the focus of the State lamp. Their attitude is in the main—

> Notification is vexation,
> Inspection's twice as bad,
> For isolation there's no occasion;
> Disinfection drives me mad.

The objection hardly requires serious answer. No one has a right to spread infectious disease through the State, however free and enlightened the community may be. A man is master of his own actions so long as those actions do not jeopardize the safety of his fellows, and, as I have shown, no system can be effective without being complete, and none complete without State compulsion.

2. Next comes the important phase of the question, how is the system of notification of infectious disease best carried out? Herein lies the crux of the whole question. There can be little doubt of the utility of the system. There

is a good deal of doubt as to where responsibility shall lie. The voluntary system has been considered and condemned. The compulsory system remains. Is it to be compulsory on the householder, the medical attendant, or on both? If the responsibility devolves on the householder alone, complete registration can hardly be looked for; want of opportunity, ignorance and poverty will now and again almost compel omission, or at least tardy notice. A disinclination on the part of the relatives of the sick to have a public medical officer thrust in on the scene, or of having the patient sent off to some hospital, with perhaps destruction or damage to some of the surroundings of the patient, or the risk of themselves being isolated in quarantine, or of injury to business, would assuredly prevent complete returns. Still, the householder must not be exempted, as from the fear of such consequences as the above he may be loth to send for a medical man at all when there is a suspicion of anything infectious.

On the other hand, some contend that it is the medical attendant who should be compelled to notify. Then there are the two phases of the dual method, (*a*) that the local authority should be informed by both the householder and the medical attendant, and (*b*) that it should be compulsory on the medical man to inform the head of the household in writing as to the infectious character of the disease, which information the householder should be bound under a penalty to transmit to the local authority. The question is a nice one; there is no doubt that the medical man is the best qualified to give the information from his knowledge of the case and of the surroundings, but the householder must not be exempted, for the reasons already stated. In most cases where the dual system obtains, the local authorities, recognizing the additional responsibility thrown on the medical man, give a small bonus for each case notified: 5s. in Birmingham, 2s. 6d. in Edinburgh and other places. There is also a penalty of £10 in case of neglect. This helps to make the registration more complete, and is therefore desirable. At a meeting of the Society of Medical Officers of Health held in December, 1875, it was unanimously resolved that:—

1. Infectious disease ought to be reported by the householder to the sanitary authority without delay.

2. Every medical man attending a case of infectious disease should give immediate information respecting its nature to the occupier or other person responsible for reporting to the sanitary authority.

Since that date it has been found in practice that the notice must come from the medical man. In one town only has notification by the householder been tried, viz., Greenock, and, as might be expected, the results are very unsatisfactory, as only something over 50 per cent. of the cases came to the knowledge of the sanitary authorities; but even under these circumstances the death rate of the town diminished progressively and considerably; it is therefore clear that with a more complete system a proportionately greater advantage would be gained. Dr. Wallace, Medical Officer of Health for Greenock, concludes a valuable and interesting report by expressing a fear that "no further material improvement will take place from notification by the householder."

Notification by the medical attendant has been opposed by some on the ground that it is a betrayal of that confidence which is necessary between doctor and patient. Such might be the case if there were no compulsory law requiring it; if the object were to injure instead of benefit the patient and the community, and if all medical men were not placed under the same obligation to notify; when, further, it is the rule for the householder as well as the doctor to notify, the former can have no possible ground of complaint in that direction. *Salus populi suprema lex.*

Up to 1886, 38 of the largest towns in Great Britain adopted compulsory notification, and of these, 34 have adopted direct notification by the medical man, while 30 of these require notification also from the occupier; in three of them only does it rest with the medical man to notify indirectly or to the occupier, so that the dual system is by far the most in favour—it is the one recommended by the Local Government Board in 1878, and by the Select Committee of the House of Commons in 1882; it is theoretically the only efficient one, and in practice it has been proved to act satisfactorily. At the Seventh International Congress of Hygiene and Demography, held in London, August, 1891, Martin of Paris proposed that compulsory notification of infectious diseases was desirable, and that it was best effected by the dual system. Carried by overwhelming majorities. The discussion shows that the system is in vogue in Germany, the United States, and Canada, in none of which places is there any fee payable for notification. The reasons why the medical man should notify are so plain: he alone is qualified to diagnose the disease; he alone, bearing in mind the ignorance, poverty, and other disqualifications of large numbers of persons, is qualified by his education, his appreciation of the necessities of the case, his freedom from interest, prejudice, alarm, or confusion, to notify it, and he would by his direct action save much unnecessary delay.

As a fact, when notification is carried out it is always by the medical man when under the dual system.

A moment's reflection will show how far-reaching the benefits of compulsory notification are. Chiefly, the discovery of these first cases, which may swell into an epidemic, their isolation and removal and the consequent prevention of dissemination by public vehicles, laundries, shops, dairies, lodgings, schools, &c., &c.

It acts hand in glove with the sanitary inspector's work—typhoid is notified and is traced to a dairy, and the sanitary authority steps in—visitors go to a lodging house at, say, a watering place, and contract scarlet fever or typhoid—the disease is traced back to there and the place disinfected or the drains attended to. Respectable hotel and lodging house keepers would rather welcome the inquisitorial inspection of a sanitary officer, as they could then say they could show an official "clean bill of health." In case of an epidemic it would force the hand of the local authorities to provide hospital accommodation. I am certain that if the system of notification had been in existence in Brisbane during the last scarlet fever epidemic, from the beginning of that epidemic, hospital accommodation would have been provided months before, and many lives might have been saved.

The medical profession is, I am sure, too noble and generous in its aims to let mere sentimental objections or considerations of self-interest, or a false professional *armour propre* stand in the way of the public weal. We are the servants, and not the masters, of the public, and it has been usual to regard our profession as the most philanthropic, benevolent, and self-sacrificing of all. I hope that the amount of opposition to so great a sanitary step forward will not be calculated to jeopardize that reputation.

RESULTS OF COMPULSORY NOTIFICATION IN LONDON.

	Typhus and Typhoid.	Small Pox.	Scarlet Fever.	Measles.	Diphtheria.	Croup.	Whooping Cough.
Seven years before the Law, 1866-1872	23,615	22,372	3,416	10,797	3,954	6,477	7,990
Yearly average ..	3373·5	3,196	488	1,542	565	1,079	1,331
Seven years after the Law, 1874-1880	7,847	562	2,613	6,916	2,158	5,594	9,280
Yearly average ..	1,120	80	373	988	308	932	1,546
SMALL-POX.							
Five years, 1866-1870		2,854				Not under the Act.	
Yearly average ..		570					
Five years, 1874-1878		475					
		95					

The figures represent deaths from the various diseases.

THE FORCEPS IN LABOUR, WITH SPECIAL REFERENCE TO A RESISTANT CERVIX.[*]

By David Hardie, M.D., Brisbane.

The discussion on obstetrics at the last meeting of the Queensland Medical Society, recalls a short paper read by me some time ago on "Some points on the use of the Forceps in Labour." After alluding to some matters of minor importance, there was one other point noted, namely, the time when traction ought in some instances to be made.

In all text-books that I know of, we are advised to imitate nature as much as possible, and to pull with the forceps only during the pains. Playfair says: "We must extract only during the pains." Schroeder says: "Traction is to be begun at the commencement of a pain and gradually increased; as the pain passes away the traction is diminished." Munde says: "When making traction proceed only during the pain." Spiegelberg is less emphatic when he says: "If there is no cause for hurry it is well to pull during the spontaneous pains, or during such as are provoked by friction." Now when the head is low down and the cervix is retracted over it, or if before retraction the cervix is fairly exhausted and does not contract strongly during the pain, and the resistance lies chiefly in the bony pelvis and vaginal walls, this rule must undoubtedly be adhered to. When, however, the head is high up, or if low down has not passed through the cervix, and during the pains there is tolerably strong contraction of its circular muscular fibres — so strong that the chief resistance to the descent of the head seems to lie in the cervix itself—it is more than doubtful whether the advice universally given is the best and safest to follow. That the latter class of cases comes within the ordinary rule is seen from Schroeder's remarks, when he says: "Neither the application of the forceps, nor the extraction, materially differs when the head is high up, provided the pelvis be normal."

Suppose, on making an examination *during the pain*, the head is felt to be fairly low down, the os about the size of half-a-crown and the cervix very tense. The pain is a strong one, and yet it, or even many such, have little effect as far as the progress of labour is concerned. If, again, the examination be continued *between the pains*, the cervix is soft and pratically dilated or dilatable to the fullest extent, so that the lower uterine segment and vagina almost form an uninterrupted cavity, and may be pushed up over the head as far as the finger will reach, only to return again, and act as a strong sphincter with each return of the pain. During successive examinations, we are impressed with the fact that when the pains come on, the chief function of the cervix is to retard the progress of the head; and that this is so, and that the obstruction in many cases lies in the cervix itself, I am sure we have all been able to verify.

---

[*] This does not apply to the resistant cervix of the early first stage of labour, which is so much benefited by large doses of opium or chloral.

Nor is this to be wondered at when we bear in mind the anatomical arrangement of the muscular fibres of the body and cervix of the uterus. We know that the muscular fibres of the cervix run in a circular direction, while those of the fundus and body are chiefly transverse and longitudinal, the latter being attached to those of the cervix at the internal os. During a pain, therefore, while the uterus proper contracts, and so endeavours by the twofold action of intra-uterine and fœtal axis pressure (Spiegelberg) to expel its contents, the cervix contracts, after the manner of a sphincter, and thus retards the passage of the presenting part. Such are the means nature employs to prevent an over-rapid delivery. The muscular fibres of the fundus and body are, however, *under ordinary circumstances*, functionally much stronger than the circular ones of the cervix—the intra-uterine pressures, together with direct traction of the longitudinal fibres, are greater than the resistance—so that in time the latter become exhausted and must give way.

Charpentier says:—"The uterus may be regarded as a hollow muscle which, in order to expel its contents, must first establish an opening through which these contents may pass. The factors co-operating for the formation of this opening are: The effacement, the widening and softening of the cervix, the traction exerted upon the cervix by the uterine contractions, and the increase of intra-uterine tension due to this traction. . . . . The first effect of the uterine contractions is thus to shorten the longitudinal fibres, and consequently to exert traction of the cervical circular fibres—to act, in brief, upon the whole circumference of the orifice. A contest thus takes place between the longitudinal fibres and the cervical circular ones; and as the former overcome the latter, the cervix must yield and open."

Schroeder again says:—"The muscular fibres of the fundus are more strongly developed than those of the body, and these again more so than those of the cervix. In the cervix again there is a spot which is entirely devoid of muscular fibres. If, therefore, a simultaneous contraction of the whole organ takes place, the place devoid of muscular fibres must always be more and more enlarged, and their process of enlargement is only very slightly impeded by the circular fibres which surround that opening."

In the great majority of cases the latter part of this quotation from Schroeder is absolutely correct, but there are cases where "this process of enlargement" is not merely "slightly" impeded by the circular fibres of the cervix, but so materially impeded, that it would appear as if the latter were, if not too strong for the transverse and longitudinal fibres, at least strong enough to resist successfully for some considerable time, their propelling and dilating force.

Perhaps it may be said that the cervix is thus very wisely preventing an over-rapid delivery; but there is a limit to this, not only for the sake of the accoucheur, but even more so for that of the patient. Moreover, before the circular muscular fibres of the cervix are exhausted by intra-uterine pressure, as well as by contraction directly of the longitudinal fibres of the body, the latter will possibly have little residual force left, the pains will be unable to expel by themselves the contents of the uterus, and in the end the forceps will require to be resorted to. Under these circumstances it is our obvious duty to interfere in time, and thus prevent a protracted labour.

If, now, the forceps be used as directed *during the pains* in a case where the cervix seems to be the chief cause of delay, what should we expect to happen, and what does actually happen in some, perhaps in many, cases? The point of resistance must give way, and we have as a result a lacerated cervix. It is needless to say that we should not apply the forceps until the cervix is sufficiently dilatable during the pains as to eliminate all source of danger in this respect, for we are dealing with a case of some duration, that has practically entered the second stage of labour, (1) where the cervix is fully relaxed and dilated between the pains; (2) where, however, the contractile power of the cervix during the pains is not exhausted, but seems for the time equal to the intra-uterine pressure; and (3) where the labour, if left to nature, will be unnecessarily prolonged, and ultimately demand, for reasons already given, the use of the forceps.

In cases of this kind I now invariably pull with the forceps at a time when nature seems to invite us—namely, when the cervix is relaxed and dilatable *between the pains*.* The head descends with but little resistance—indeed, when we remember the strong pains previously going on without much apparent benefit, we are surprised how easily it comes down—the cervix carefully pushed up, and the child delivered with the greatest possible ease. We have avoided what we believe to have been the main cause of the obstruction, and the easy and speedy delivery of the child is a fair guarantee that our suspicions were correct. Should the difficulty in delivery be greater than anticipated, it may be allowed that something beyond the cervix assisted previously in retarding labour, and *after the cervix is fully retracted over the head* the forceps may now be used, as generally directed, "during the pains."

---

* The patient must, of course, be under chloroform, otherwise the cervix will respond to the stimulus and contract.

It is not an unusual thing to use the forceps gently between the pains, when the head is passing over the perinæum, and the latter is very tense; but the reason for doing so in this case is very different. For a resistant cervix, traction is used between the pains, so as to avoid its resistance during contraction; for tense perinæum, so that the force applied, whether it be the forceps or merely the hand, may be less strong than the usual uterine pains of this stage, and the head thus "shelled out" with the least possible risk of rupture.

A WEIGHTY FEMALE INFANT.

By George Read, L.R.C.S.I.,
of Kiama, N.S.W.

While practising in Kogarah in the year 1887, on the evening of January 2 I was summoned to the bedside of Mrs. W. at Hurstville.

On arrival I found my patient in active labour, with a well-dilated os and head presenting. She had been 36 hours in labour, and had only a "handy woman" in attendance. I immediately ruptured the membranes and watched carefully for three hours; but seeing no progress in the case, attempted to deliver with Barnes' long forceps, but failed. I called my colleague, Dr. Dowd, to administer chloroform, and again tried the forceps, with a similar failure. I then determined to turn, and after a considerable amount of trouble delivered the woman of a living female child.

I weighed the infant four hours after birth, and found to my astonishment it turned the scales at 16½lbs. avoirdupois. Not being satisfied with their scales, I sent home for my own, and in the presence of the father, mother and nurse again weighed and found the same result, namely, 16½lbs. avoirdupois.

They informed me that on December 11, 1876, Dr. Tarrant delivered the mother of a male child, which weighed 14lbs., at Kiama.

The parents are of the labouring class; the father about 10½ stone, and the mother 18 stone in weight. Mother and child had an excellent recovery. This case may be of some interest to the profession, although not of recent date.

Leishman gives the average weight 7¼lbs., and 12lbs. as a very unusual weight.

In 4,000 cases in the Maternité, Madame Lachapelle only found one child which weighed 13¾lbs.

Rigby states that Sir Richard Croft delivered a living child 15lbs. in weight.

Mr. Ownes delivered a woman of a stillborn child 17lbs. 12oz.

Another case of a stillborn child, which was said to have weighed 19½lbs, is given by Cazeaux, but the weight was not taken by himself, and he seems to admit a doubt of it.

Barnes gives the usual weight at birth 6½lbs.

TWO CASES OF ECTOPIC GESTATION—OPERATION—RECOVERY.

By Arthur Andrews, M.R.C.S.E. and L.S.A.
Lond., Albury, N.S.W.

Mrs. T., *æt.* 29, married three years; no family; menses regular till October, 1892, when the usual indications of pregnancy set in; was well until the night of January 26, 1893, when she was attacked by severe pain in the left groin, gradually extending over the abdomen and increasing in intensity, and accompanied by vomiting and collapse.

First seen at 9 a.m. on 27th, when she was evidently suffering from internal hæmorrhage with peritonitis, which precluded any thorough examination. She was collapsed, and for some hours in a very critical condition, but gradually rallied.

February 3.—All the acute symptoms had passed off, and she had very much improved generally. To left of uterus was a swelling the size of a hen's egg, pulsating, and only slightly tender. The uterus was normal in size and moveable. The breasts were enlarging, and the signs of pregnancy becoming more marked. Tubal pregnancy was diagnosed and operation decided on.

She was therefore brought into town, and on February 8 I operated and removed the left fallopian tube and ovary with some difficulty, owing to adhesions. The tube contained an ovum about the size of a hen's egg, which had burst, and apparently was just commencing to bleed again. A large amount of old blood and clots were washed out of the pelvis. A glass drainage tube was inserted and the wound closed with silk and catgut sutures. She bore the operation well, but three hours later the nurse, while emptying the tube, managed to pull it out. It was necessary to again give chloroform and remove three stitches to reinsert it. Troublesome vomiting and restlessness ensued. Retching stopped after 36 hours, and the drainage tube was removed six hours later. The temperature was 99 degrees the first night, and half a degree higher the second, and afterwards normal.

Recovery was rapid, and on the eleventh day she was removed home, still recumbent. The wound had healed by first intention, but about the twentieth day a small escape of pus took place from the position of the drainage tube.

On March 5 there was only a little induration to left of uterus, and she was allowed to get up, wearing a suitable bandage. A few days later she menstruated without pain, and resumed her domestic duties, only avoiding heavy exertion.

May 25.—Is quite well, and says she is better and stouter than before the trouble.

CASE II.

Mrs. R., *æt.* 33, married 13 years; five children, youngest 23 months and only weaned at end of February. Has not been well for some time, and has suffered from menorrhagia for some months, and almost continuously for five weeks.

On March 16 she had a severe attack of vomiting and diarrhœa, which weakened her very much and kept her to bed for five days. She was slowly recovering, when on March 26 she was seized with intense abdominal pain, especially across the upper part, constant retching, tenderness, and general collapse. She gradually rallied, and two days later the menses had reappeared, with tenderness and pain in left iliac fossa and above pubes. Vaginal examination, very painful, disclosed some tumefaction to left of uterus.

With rest and local measures the tenderness and pain ceased by March 30, when a pulsating swelling as large as a pigeon's egg could be felt to left of the uterus, which was normal in size and moveable.

Ectopic gestation being suspected, laparotomy was decided on, and performed on April 2. When the peritoneum was opened there was a rush of dark fluid blood and clots to the amount of more than a quart. In the outer end of the left fallopian tube there was found an ovum, an inch and a quarter in diameter, which had burst. This with the tube was removed, and the uterus and other appendages being healthy, the pelvis was well washed out with hot boracic lotion, a glass tube inserted, and the wound closed with silk sutures. Very little retching or pain followed, and the tube was removed after 40 hours. The temperature reached 99° on the second night, but through the rest of the case was normal. The wound did well till the fifth day, when a gush of decomposing blood and clots took place. A rubber tube was inserted and the cavity washed out with perchloride lotion, and in four days removed, and the opening rapidly closed. There was a good deal of distention of the colon from the fifth to the eighth day, which was relieved by salines and enemata.

April 20.—The menses reappeared without pain and normal in quantity, lasting four days. She was allowed out of bed on the 26th, and rapidly regained strength.

May 23.—Quite well. She nursed a child through an attack of scarlatina.

CLINICAL MEMORANDA.

A CASE OF INGUINAL COLOTOMY IN AN INFANT FOR CONGENITAL ABSENCE OF THE LOWER PORTION OF THE BIG BOWEL.

BY C. E. TODD, M.D., L.R.C.P. LOND., M.R.C.S.E., ASSISTANT SURGEON TO THE ADELAIDE HOSPITAL.

A WELL nourished infant, three days old, was brought to me because it had not had any motion since its birth and had begun to vomit. On examination I found its abdomen enormously distended. There existed an anus, through which a finger could be passed into a *cul de sac* an inch and a half long. No motion appeared on the finger, nor could any be brought down by syringing. Under chloroform another attempt was made to pass the finger or a bougie beyond the obstruction, but nothing could be got through. I then did left-sided inguinal colotomy, stitching the distended gut to the peritoneum and abdominal muscles. As the child was vomiting constantly, I opened the bowel at once, giving exit to a large quantity of meconium. The infant was much collapsed, but after a hot carbolic bath took the breast readily and was not sick afterwards. In the evening the child had rallied well, the abdomen was not distended, and there were no signs of peritonitis. She died, however, early next day, apparently from collapse.

At the *post-mortem* the large bowel was found to end in a dilation at the sigmoid flexure; it was, however, united to the top of the *cul de sac* by a fibrous impervious cord.

I only remember one other case of imperforate anus since I began practice; in this instance there was a dimple in the usual site of the anus, but no *cul de sac*. I made an incision in the middle line of the perinæum and continued it until the lower part of the bowel was reached, about one inch from the skin. The gut was drawn down, stitched to the margins of the wound, opened, and the child made a good recovery, and now has a very serviceable anus.

Adelaide, 22nd March.

FREQUENT PULSE AFTER VAGINAL HYSTERECTOMY.

By W. R. Bacot, M.R.C.S.E., Medical Superintendent, Hospital Townsville, North Queensland.

◆

On September 9, 1892, I extirpated per vaginam the carcinomatous uterus of a stout, alcoholic patient aged 48. Forceps were left on the stumps for 48 hours.

Everything went well till the afternoon of September 30, when smart vaginal hæmorrhage of about 4 ozs. occurred. Under chloroform, I found and clipped with catch forceps, which were left on, a spouting vessel in the situation of the left broad ligament stump in the vaginal roof—a point which the specimen and result shew was far beyond the limits of disease. On recovery from the anæsthetic, the pulse rate (never since the operation above 100) began to rise, reaching that evening 120, with temperature 100° F., and the following evening 178, with temperature 99° F. The pulse continued between 160 and 170 till the night of October 5, when it suddenly fell to 90.

During this time the patient felt, and was, in every other respect, perfectly well. She was not aware that there was anything to be alarmed about in the hæmorrhage, neither was she suffering pain, nor was there any ascertainable disease of the heart to account for the tachycardia.

The patient had no further hæmorrhage, made a good recovery, and has been in excellent health ever since.

At a Meeting of the Joint Committee of the Chicago Medical Profession on World's Fair Entertainment, held at the Sherman House, November, 1892, the establishment of a Bureau of Information and Service was delegated with approval and endorsement to Chas. Truax, Greene & Co., the Committee reserving to itself the duty of such social entertainment of visiting physicians during the continuance of the Exposition as may seem desirable. This action was confirmed at the final meeting of the Joint Committee, 25th February, 1893, and on application of the Practitioners' Club and the South Side Medical Club, the matter of social entertainment was delegated to them, with full authority to act in the capacity of entertaining bodies, with the retention of the chairman and its American and foreign secretaries already appointed. Chairmen: Dr. Charles Warrington Earle, Dr. Archibald Church, Dr. George Henry Cleveland; Secretaries: Dr. John C. Cook and Dr. J. C. Culbertson.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF QUEENSLAND.

◆

The 77th general meeting was held in the Courier Building, Brisbane, on May 9, 1893, at 8.30 p.m. Present: Drs. Hardie (in the chair), Hill, Gibson, Hoggan, P. Bancroft, Taylor, Booth, Little, Byrne, Ure, Wheeler and Turner. Visitor: Dr. Lawes.

The President conveyed the apologies of the Hon. Sec. to the meeting for his absence, as he was confined to his bed from influenza, and expressed the hope that Dr. Love would soon be able to resume his duties among them. The following paper was then read :—

NOTES ON CASES OF ECLAMPSIA.

By J. A. Wheeler, M.B. et B.S., Lond., M.R.C.S. Eng., Brisbane.

◆

I.—L.M., *æt.* 31. At the end of eighth month of her fourth pregnancy had been unwell and complained of slight headache for a day or two, but had had no medical advice and had taken no medicine. Had been doing some washing on the morning of December 10. About 11 a.m. she suddenly fell on the floor without a cry, and became violently convulsed over the whole body. She apparently did not recover consciousness after this attack. A medical man was sent for who gave a prescription and then went away. The convulsions increased in force and frequency during the day, and at 7 p.m. I was sent for, as the doctor who had been previously called in could not attend.

The patient was comatose, with widely dilated pupils reacting very sluggishly to light; face pallid and breathing hurried and stertorous. The tongue had been slightly bitten. Pulse 140 and weak; temperature 104. The convulsions came on every ten minutes, beginning with conjugate deviation of eyes and head to the right. This was succeeded by rigidity of the whole body, which lasted for about half a minute and then gave place to violent spasms, which lasted for about three minutes. As the patient was unable to swallow, gr. xxx pot. brom. with gr. xx chloral hydrate were given by the nasal tube, and ♏i ol. crot. on tongue. Vaginal examination showed the os dilated about the size of a shilling and the head presenting. The bladder was empty, urine having been passed into the bed during a convulsion.

The membranes were ruptured, but finding that had no appreciable effect on the paroxysms, I proceeded to dilate with Barnes' bags, and extracted a dead child by the high forceps operation at 10 p.m. The placenta was expressed soon after, and after delivery the pulse fell to 120, temperature to 101·4, and the convulsions to one every half hour, being also less violent. A second dose of bromide and chloral was then given, together with some egg and milk. Between 10 p.m. and 11 a.m. next morning she had 20 convulsions, which were of less intensity, probably owing to the failing strength of the patient. The pulse, however, had risen to 160, and was weak and flickering, while the temperature was 107·6. In the course of half an hour this was reduced to 103 by means of gr. v antifebrin and cold sponging. The bowels had been freely opened and urine passed into the bed. ʒi brandy was given with the egg and milk, and ordered to be repeated every three hours. The convulsions ceased shortly after 11 a.m., but by 3 p.m. temperature had risen to 106 and pulse to over 160. As the extremities were becoming cold, hot water bottles were applied to the legs and feet, while cold sponging was applied to the body. Temperature was by this means reduced to 103, but the patient rapidly sank, and died at 8 p.m.

II.—M. M., *æt.* 25. Second confinement at full term. Had apparently been in good health during her pregnancy, and only a day or two previously had told a friend that she never felt better in her life. Had expected confinement a week previously. On March 19 she was suddenly seized with a violent convulsion about 1.30 p.m. At 2 p.m. I found her unconscious; pupils dilated and insensitive to light; breathing stertorous; face and legs very œdematous; pulse 120; temperature 103. The attacks began with conjugate deviation of eyes and head to right, followed almost immediately by convulsions rapidly extending over the whole body. Each paroxysm lasted for about two minutes, and recurred about every five or six minutes. The os was dilated so as to admit two fingers, and was exceedingly rigid. The vertex was presenting, and there did not appear to be an excessive amount of liquor amnii. The urine had been passed into the bed and was very high-coloured.

Chloroform was at once administered and assistance sent for. On Dr. Hammond's arrival the os was dilated with Barnes' bags and an attempt made to secure the head with forceps, but unsuccessfully. As the os was not sufficiently dilated to admit the hand, Barnes' largest bag was inserted for a few minutes, and podalic version was then performed and the child extracted alive about 4 p.m. Immediately after delivery, gr.xx chloral hydrate were given and chloroform stopped. The placenta was expressed in about ten minutes. The pulse fell to 100 and the convulsions ceased, but the temperature remained up. In about half an hour a slight convulsion occurred, which was subdued by a few whiffs of chloroform. About a quarter of an hour another violent paroxysm occurred, which was not much affected by chloroform. Gr.xx chloral were again given, and ♏i croton oil on the tongue. She had one or two slight convulsions between 6 and 9.30 p.m., when a large evacuation of the bowels took place. Almost immediately after this she was seized with three severe paroxysms, one after the other, and died about 10 p.m., shortly before I got to the house.

Both these cases are good examples of that most severe and fatal form of eclampsia occurring before the onset of labour, and the first case is particularly noticeable for the long duration, both of the tonic stage of contraction and of the whole paroxysm, as well as for the fact that the temperature became excessively high, in spite of the diminished frequency and violence of the paroxysms, for, as a rule, the temperature falls as the convulsions decrease. This persistent elevation of temperature is not easy of explanation, but it seems to me that in these severe forms of eclampsia the toxic irritation of the brain is sufficient not only to excite discharges of nerve force in the cortical centres, but also to disarrange the mechanism of the thermotaxic and thermogenetic centres in the deeper parts, and so keep up a persistent elevation of temperature.

Neither of these cases give us any clearer ideas on the vexed question of the causation of eclampsia. The theory of Traube and Rosenstein that the condition is due to an œdematous anæmia of the brain will not account for the majority of cases in which well-marked premonitory signs are present, and it is not borne out by clinical or *post-mortem* observation, for it has never been shown that the blood in eclamptic cases is more watery than in the healthy pregnant woman, and the brain does not show any traces of œdema as it should do in accordance with this theory. So also the view of Frerichs, that urea which is retained in the blood becomes changed into carbonate of ammonia, and so acts as a toxic agent, has not been confirmed by other equally competent observers.

Although albuminuria often occurs in pregnancy without being accompanied by convulsions, I think we may take it as certain that no case of eclampsia occurs without either preceding or succeeding albuminuria, and it seems to me more probable that both these conditions are due to a common cause rather than that the condition of albuminuria should give rise to eclampsia.

It has been suggested, independently by Galabin in England and Rivière in France, that eclampsia depends upon a process of auto-intoxication due to the formation of poisonous material (probably a form of ptomaine) in the blood in greater quantities during the pregnant than in the non-pregnant state; and this view has received confirmation from the experiments of Laulanie and Chambrelent, who found in an extensive series of experiments that the toxic power of urine taken from healthy pregnant women is considerably less than that of urine taken from healthy non-pregnant women, and that as a consequence the organism of the pregnant woman must be more or less saturated with toxic products at the termination of her pregnancy. It will be agreed by all that the blood of the mother is the only channel by which not only her own waste products, but also those of her child, are brought to the various excretory organs for elimination; and since the experiments quoted go to show that the toxic constituents of the urine are decreased, or at any rate not increased, there must be a gradual accumulation of toxic metabolic products in the woman's tissues.

It is also probable that the kidneys, which under most favourable conditions are acting at a double disadvantage of increased blood pressure internally, and mechanical obstruction by the enlarged uterus externally, are also acted upon in an irritative manner by these toxic products, which thus gives rise to a degree of nephritis sufficient to allow the albuminous elements of the blood to pass through in large quantities.

When we take into consideration the well-known nervous excitability of the pregnant woman, which sometimes exists to an extreme degree, we can see that a small quantity of these products, which under ordinary circumstances would have no effect, may in such cases be quite enough to give rise to convulsions, and that the venous congestion caused by these would be another powerful agent in increasing the sensitiveness of the cortical and deeper nervous centres to stimulus of any kind. If this view is correct, it would appear to show us another step towards rational and successful treatment.

Although in milder cases of eclampsia the administration of purgatives and sedatives is generally sufficient to overcome the danger, yet in those severe cases where sedatives fail to check the convulsions, and time is not available for the action of purgatives, it becomes necessary for us to look for further means of relief. In nearly all of these severe cases the convulsions of the mother kill the child by preventing the free current of ærated blood to the placenta, so that it is almost always necessary to terminate the pregnancy, both for the sake of the child and also for the reason that when uterine contractions are once set up each one is accompanied by a severe convulsion. But even after delivery the toxic material still remains in the blood to exert its effect upon a cortex and other centres which are rapidly becoming exhausted.

There is no doubt that the practice of copious bleeding formerly used in these cases did much good temporarily, and it seems to me that the reason why paroxysms so often recurred, sometimes with increased violence, is due to the fact that the volume of blood in the body, being restored by abstraction of the watery elements of all the other tissues, becomes at the same time recharged, even to a higher degree than before, with this toxic material, which is also dissolved to an even greater degree in the intra-cellular fluids of the organism.

It seems, therefore, that if we can by bleeding remove this toxic material from the blood, even in only a small proportion, without diminishing the quantity of fluid circulating in the vessels, we shall be a step nearer solving the rational and successful treatment of this exceedingly fatal condition. The natural answer to the question is to replace the blood removed by an equal quantity of healthy human blood; but the transfusion of blood is a very troublesome and unsatisfactory operation, especially where, as in these cases, a certain amount is needed. We have, however, in salt solution an agent which is quite as useful as, and much less troublesome than, blood.

Two series of cases have been lately reported in the "Guy's Hospital Gazette," in which Mr. Arbuthnot Lane, of that hospital, and Mr. Pye Smith, of Sheffield, used with great success large intravenous injections of salt solution of a strength of ʒj to Oj of water in cases of excessive hæmorrhage following surgical operations and injuries, and some years ago my teacher, the late Dr. Hilton Fagge, injected a considerable quantity of salt solution into the veins of a man suffering from diabetic coma, with the result that consciousness was almost immediately restored, and continued for 32 hours, at the end of which time he once more became unconscious, and eventually died.

Taking the results of these cases, and the considerations mentioned above, I think that the combination of copious bleeding with the immediately following injection of saline solution would give us all the good results without any of the dangers of the old method of treatment, for it would remove a considerable amount of toxic material in the blood; it would restore the volume of the blood without having to draw upon the vitiated serous fluids of other tissues; and it would do away with all the grave dangers, independent of eclampsia, but always to be feared in cases of severe hæmorrhage.

In placing this suggestion before you, I would remind you that it is a purely theoretical one, for as far as I know, it has never been tried before for eclampsia; but I think it is based on sound

principles, and for that reason I thought it worth offering for your consideration.

DR. P. BANCROFT insisted on the importance of immediate delivery in these cases.

DR. LITTLE mentioned a case of eclampsia in an apparently hopeless condition after the uterus had been emptied, which recovered after a free bleeding to the extent of about two pints of blood.

DR. GIBSON spoke in favour of the subcutaneous injection of philocarpine with the view of eliminating the toxic elements in the blood by free diaphoresis and diuresis, and so attacking the cause of the convulsions. He thought this treatment preferable to bleeding. If transfusion were necessary, he would suggest the employment of blood treated with phosphate of soda as better than saline solution.

DR. HILL had seen about a dozen cases of puerperal eclampsia. In some, convulsions, which were present before labour, ceased after delivery. In others they continued until checked by free bleeding from the arm, which in his experience had always been followed by recovery. Of late years he had used pilocarpine to free diaphoresis in three cases, all of which ended fatally. He intended henceforth to return to bleeding, and would probably stick to this method of treatment as long as he lived.

DR. TAYLOR had seen an obstinate case recover after bleeding, pilocarpine having been previously used unsuccessfully. He had used intravenous and intracellular injections of saline solution in cases of hæmorrhage, post-partum and other, with apparently good results.

DR. URE considered that the good effects of delivery in these cases were due in great part to the loss of blood which occurred from the uterus. This failing, he also advocated taking blood from a vein.

DR. P. BANCROFT had seen a case of eclampsia recover after the injection of pilocarpine, but after a stage of collapse with excessive salivation and bronchial secretion. He looked upon this drug as dangerous, and would hesitate about using it again.

DR. HOGGAN had seen two cases, in both of which the convulsions ceased after delivery.

DR. BYRNE believed in immediate delivery, followed if necessary by venesection. He reported seven cases, of which two ended fatally. In three cases convulsions ceased after delivery; two were apparently cured by venesection. In one fatal case pilocarpine was injected, first $\frac{1}{8}$gr., followed by $\frac{1}{10}$gr., without causing diaphoresis. In the second fatal case the convulsions ceased after turning and extraction of the child. To give the woman rest and relief from pain, he injected $\frac{1}{8}$gr. of morphia. There were no more convulsions, but the woman fell into a deep sleep and died six hours later. He attributed this death to the morphia, which drug, he thought, ought not to be used in cases of eclampsia.

DR. HARDIE used chloral freely, 45gr. by the rectum, repeated in two hours if necessary. If this failed he performed venesection. He had noticed in all his four cases the presence of severe epigastric pain as a premonitory symptom, lasting some hours before first convulsion. He considered that bleeding acts partly by reducing arterial tension, and that the expediency of again raising arterial tension by the injection of saline solution is doubtful.

DR. WHEELER, in reply, mentioned that he had seen pilocarpine used in four cases of eclampsia at the Guy's Lying-in Charity. All these cases died. He advocated saline injection only when bleeding had to be excessive in order to check the convulsions, and left the pulse very weak. He considered the symptoms of eclampsia to be due not to increased arterial tension so much as to the accumulation of toxic products in the blood. Saline solution might be expected to act as a diuretic, and so wash these products out of the system. Washbourn and Stevenson's experiments showed that saline solution injected into a vein was as efficient a restorative in cases of hæmorrhage as blood treated with phosphate of soda.

DR. HOGGAN then read the following:—

NOTES ON A CASE OF TWO ACUTE ULCERS OF STOMACH RESULTING FROM KICK BY A HORSE.

By DR. B. B. HOGGAN, PHYSICIAN FOR OUT-PATIENTS, CHILDREN'S HOSPITAL, BRISBANE.

◆

I WAS called one afternoon to see a fine plump little fellow aged five and a half years, whom, I was informed, had been kicked in the abdomen by a horse, and had straightway vomited half a cupful of pure blood. (This was the mother's statement). When seen, which was half an hour after the accident, the child was recovering from shock. I prescribed the usual remedies for internal hæmorrhage, and on my visiting him the next day I was informed that no more vomiting of blood had occurred, but that the child had put in a very restless night; he lay quiet, but complained of great pain on pressure over epigastric and right hypochondriac regions. Opium and rectal feeding was resorted to, and his condition from this date gradually improved; pulse good. Temperature normal up to the sixth day from date of accident, when most intractable vomiting set in; various remedies were tried without avail. I then removed the child to the children's hospital, where his symptoms, restlessness and vomiting, rapidly grew worse, and he died from exhaustion on the third day after admittance.

Post-mortem.—I was present at the *post-mortem* examination, which was performed by Dr. Lawes. Nothing of importance was discovered externally, except a certain amount of discolouration over abdominal surface. On opening the abdomen a small blood clot was seen between head of pancreas and duodenum. The head of pancreas itself showed evidence of injury; slight hæmorrhage under capsule of right kidney; other organs healthy. On laying open the stomach we discovered two ulcers, each about the size of a shilling, one on the anterior and one on posterior surface, and when the two surfaces were brought together the ulcers were exactly in apposition; perforation had nearly occurred in both. On base of anterior ulcer a small hæmorrhagic spot was seen—evidently the closed mouth of the vessel from which hæmorrhage had occurred at time of accident. I feel sorry we did not keep specimen to show Society.

Previous history of this child was good.

A discussion followed, in which Drs. Little, Turner Byrne, Hill and Hardie took part. Dr. Hoggan replied,

---

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

AT the monthly meeting held at the Adelaide Hospital on April 27, Professor Watson showed the following pathological specimens :—

SKULLS.—(1) Hydrocephalic skull from child four years old ; (2) abnormally elongated skull of infant ; (3) skull of woman who was operated upon for carcinoma mammæ two years before death. It shows multiple cancerous perforation of cranial vault.

OVARIAN DISEASES.—(1) Sarcoma of both ovaries removed by Dr. Way ; (2) tubercular fallopian tubes removed by Dr. Way ; (3) ovarian cyst, weighing 19lb., from a woman *æt.* 21, who died suddenly of syncope the day before she was to have been operated upon.

DISEASE OF URINARY APPARATUS.—(1) Calculus impacted in vesical orifice of right ureter. The corresponding kidney showed some dilatation of its pelvis and calices. The other (left) kidney was very small and fibrotic. Patient died of uræmia. (2) Kidney showing scattered hydatid cysts of small size distributed through its substance.

LARYNGEAL DISEASES.—(1) Four specimens of tubercular ulceration of larynx. In two of them the epiglottis has been entirely lost by ulceration. In the other two the ulceration is limited to arytæno-epiglottidean folds and sinuses of larynx. Both the latter came from individuals with syphilitic history, but who died of pulmonary tuberculosis. (2) Larynx from man who died of pneumonia after excision of half the tongue. A preliminary crico-tracheotomy had been performed. A part of the ossified cricoid cartilage is necrotic. (3) Larynx from a cretin, *æt.* 14, with myxœdema. The thyroid gland is represented by a scar-like matting of connective tissue destitute of glandular elements. (4) Larynx from an old woman who died of myxœdema. In this case also the thyroid is much wasted. Both the above were patients of Dr. Lendon.

DIGESTIVE APPARATUS.—(1) Rectal carcinoma excised by Dr. Poulton with excellent results ; (2) gall bladder packed with small facetted calculi from a girl of only 20 years of age, who died of typhoid fever.

AMPUTATIONS.—Stump resulting from a modified Farabeuf's amputation of leg by Dr. Poulton. It shows the limits of possibility in conservative surgery, as the tubercle of tibia has been sawn through. Patient was an Irishman 67 years old, whose leg was crushed by a tram on Christmas Eve. On St. Patrick's Eve he broke the neck of femur of same side, and died a month later of pulmonary embolism from thrombosed femoral. (At the *post-mortem* two hydatid cysts were found in right lobe of liver.) As far as I have seen, such cases in the Adelaide Hospital are amputated either through or above the condyles, and the results, all things considered, are not brilliant.

DR. T. K. HAMILTON exhibited the following cases :—

No. 1. **PLASTIC CONJUNCTIVITIS, WITH DENSE AND RECURRENT EXUDATION ON BOTH CORNEÆ.**—R. H., aged 15 months, (kindly sent to me by Dr. Macmillan of Narracoorte). About March 28 violent inflammation set in in both eyes, and Dr. Macmillan saw the child on the third day. The lids were then enormously swollen and there was profuse discharge. The corneæ soon became, despite all efforts to prevent it, involved, and a croupous membrane was discovered on the conjunctiva. On April 11th I saw the child for the first time ; there was then still considerable swelling of the lids with thickening of the conjunctiva, copious purulent discharge, and both corneæ were densely opaque, with a partial staphyloma of the right. There was no membrane to be seen on the conjunctiva. The free use of nitrate of silver and a lotion of sublimate soon checked the blennorrhœa, but no sooner was it controlled than the exudation returned, and what seemed at first to be a purulent infiltration of both corneæ commenced. Iodoform insufflations were now substituted for the nitrate of silver, but as soon as the membranous character of the keratitis became apparent, quinine was dusted in and the iodoform stopped. The treatment now consists of quinine by insufflation and in solution, grs. 3 to the ounce, under which applications a marked improvement has taken place. The chief point of interest in the case is the membranous exudation occurring on the corneæ as part of the croupous conjunctivitis. It has never fallen to my lot to see a similar condition of corneæ as this case presents, nor can I find any reference to such in the text-books. The membrane on the conjunctiva is thin and easily removed, whilst that on the corneæ is thick, tough, and closely adherent to the corneal surface, requiring some little force to remove it. The denuded surface is rough and vascular. Very rapid reproduction follows the removal of the membranes, the new exudation of to-day being apparently as dense as the one removed yesterday. Tweedy (London) strongly recommends the use of quinine in these cases, as being of all antiseptics for the cornea the only one which is antiphlogistic as well as antiseptic, inasmuch as its application checks the development of protoplasm and the migration of leucocytes. The same authority asserts that iodoform does not do more than keep the inflammation in check. My experience abundantly bears out the correctness of these observations.

No. 2. **APOPLEXY OF THE RETINA.**—C. D., aged 23, (kindly sent to me by Dr. A. E. Wigg). Patient states that he became suddenly blind of his left eye five days ago. He was standing quiet at the time, and had not been exerting himself in any way previous to the occurrence. On examination, a large hæmorrhage is found surrounding the macula and occupying an area about five times the size of the disc. There is some bulging forwards of the retina, and the hæmorrhage has manifestly invaded all its layers. The vision is good considering the position of the lesion, viz., $\frac{6}{60}$, but this is seen only in the lower part of the field. There may be some hypertrophy of his left ventricle, but no valvular disease. The kidneys and other viscera are apparently healthy.

No. 3. **CONCUSSION CATARACT CAUSED BY A HAILSTONE STRIKING THE EYEBALL.**—B. B., aged 25, about eight months ago, when out in a storm, felt a hailstone strike his left eye. The blow made him close his eye for a time, but he had not felt any pain or inconvenience following it until a few days afterwards, when he found his vision begin to fail, and since that his eye has become quite blind. On examination the lens is found quite opaque, with still some of the spermaceti-like sectors of the cortex indicating incomplete maturity. There is no rupture of the capsule visible. P. L. good. The unusual cause of the traumatism is the point of interest which makes the case worth recording.

The following four papers were also read at the same meeting :—

A CASE OF INGUINAL OVARIAN HERNIA.

By E. W. Way, M.B., Surgeon to the Department for Diseases of Women, Adelaide Hospital.

◆

Displacements of the ovaries, such as are met with in gynæcological practice, are of common enough occurrence. They are usually found in Douglas' pouch, where they have dropped by gravitation, either freely movable or fixed by adhesions; or they more uncommonly may be discovered higher up in the abdominal cavity, having been carried there during the changes that accompany pregnancy and arrested there by inflammatory processes at that time. But displacements of the ovaries into the channels through which ordinary intestinal herniæ protrude themselves are very rarely met with, and the occurrence of a case of this character in my work in which the symptoms were of so severe a character as practically to alter the life of the patient from one of activity and usefulness to one of almost helpless invalidism, must be my apology for troubling you with a short account of her case.

J. E. T., spinster, *æt.* 37, school teacher, consulted me on September 30, 1892, on account of severe pain in the right groin, which was so intense in character as to make locomotion very difficult and to almost necessitate her constant confinement to the bed and couch. She had in February last consulted Dr. J. A. Hamilton during my absence, and his notes of the case state that he found a swelling of a painful nature in the region of the right external inguinal ring, which he noted as being probably a herniated ovary. She states that prior to 1881 she was in fairly good health, but at that time she noticed for the first time a lump in the right groin, which was at first painless and was regarded as an ordinary inguinal hernia, for which a truss was advised by her medical attendant. She can remember no special cause for its appearance, but she is perfectly certain it came at that time; and from this circumstance she traces all her subsequent troubles. The swelling itself never went back or disappeared from its position, either by manipulation or posture, and it is therefore not surprising to learn that the application of a truss was not a success, for it soon brought about a painful condition of the lump, which caused her to have frequent recourse to its removal in order to give her ease. Amidst conflicting advice she continued to wear the truss for several years, and suffered no other inconvenience save the pain, for she was able to take active exercise, such as long walks and tennis, excepting at the time of her menstrual periods, when the pain was always very severe and the swelling increased in size. Two years ago, however, the symptoms assumed a more aggravated form, the pain being more constant and intense, so that she was obliged to abandon her active exercise, even walking being difficult and attended with a limping gait. The intensity of the pain was always more marked just before the menstrual period and at the time of its flow, subsiding at its cessation; but it never entirely left her, and since last March she has been virtually an invalid, being almost unable to walk at all. In March last she sought the advice of her medical attendant in the town in which she lived, and he performed an operation for her relief, but I gather from him that he was unable to discover anything but tissue of a very dense, white, fibrous character, some of which was cut away. Some relief followed this operation so long as the wound remained open, but when healing was complete the pain returned with undiminished intensity, and in addition her leg became drawn up, which added to her troubles, so that a second operation was performed and the wound was laid open again and more tissue of the same character was dug out from under Poupart's ligament. This, however, was equally unsuccessful in relieving her suffering, although the flexion of the thigh disappeared.

The menstrual history is that the first appearance of the menses was at 15. She has always been regular, although the function was invariably painful, especially after she was 18 years of age. For the past two years the pain has been almost entirely confined to the left groin and surrounding parts.

On examination I noted that patient was a markedly neurotic subject; all the organs of the body were healthy. In the fold of the right groin I found an irregular projecting cicatrix passing under the middle of Poupart's ligament. The puckering of this rather altered the relationship of the parts, but to its inner side there appeared to be a fulness and hardness; but the intensely hyperæsthetic condition of the patient prevented any satisfactory manipulation of the parts, so I determined to administer an anæsthetic and explore. Accordingly next day, with Dr. Hamilton's assistance, I examined under ether and found a decided hardness to the inner side of the cicatrix, in a position corresponding to that of the external ring. Even under ether it could not be accurately defined, the impression conveyed was that of there being a small hard substance different from the surrounding tissues. A vaginal examination, subsequently repeated before the patient left the hospital, to clear up all doubt as to the condition of the internal organs of generation, showed that the womb presented the usual features of the virgin uterus, that it was normal in size, position, and direction, and that the left appendages were apparently normal; but the most careful search, both per vaginam and rectum, failed to discover the right ovary, although the fallopian tube could be distinctly felt.

An incision was then made over the centre of the hardness, and after passing through a layer of dense white tissue a body of different texture and of greyish colour was disclosed, so firmly embedded and fixed that it could not be separated or raised from its bed in the lower part of the inguinal canal. Running into it and traced upwards along the canal lay a remarkably-developed nerve, as large as the ulnar at the wrist, which was severed close to the internal ring. The growth, which was about the size of a filbert, was carefully cut away in sections and fragments, because the altered condition of the surrounding parts placed me in doubt as to what might be in contact with it. It was, however, completely taken away, the external ring and the canal being laid open to permit of its removal. The sections not only showed a different appearance in colour and texture from the adjacent parts, but they also presented several small black spots like pin-holes, and one small cavity was observed, from which two or three drops of tarry-looking fluid escaped.

The subsequent steps of the operation consisted in closing the pillars of the ring and canal, as in the radical operation for hernia. The wound healed with some slight suppuration, and she left the Private Hospital in about three weeks, immediate relief being obtained from her sufferings.

This improvement has been sustained, for she is improved in every way: her menstruation is no longer painful; her nervous condition is immensely improved; her pain has gone, and she is now able to walk about in comfort.

A microscopical examination of the fragments, subsequently made by Dr. Stirling, showed that the growth presented the elements of a fibro-myoma, in which there was a remarkable development of fine nerve filaments. Two cavities, lined with epithelium, were noticed, and stated to be graafian follicles.

The diagnosis, therefore, of a herniated ovary was confirmed, both by operation and by microscopical examination, although I felt confident from the naked eye appearance of the sections that the black spots and cavity which were seen could be nothing else but graafian follicles filled with blood altered by retention and pressure. The organ itself was structurally changed by the growth of fibro-myomatous tissue, while the whole surrounding parts were completely altered by irritative changes induced by the pressure of the truss. The presence of the large nerve in front of this growth, and of the curious development of nerve fibres in the tumour, are a sufficient explanation of the sufferings of the patient.

Hernia of the ovary may occur in any of the channels through which ordinary herniæ find their way. It has been found not only in the inguinal and crural canals, but cases of ischiatic, umbilical and obturator hernia of the ovary, although exceedingly rare, have been reported. Of the two commoner varieties, the inguinal is much more frequently met with; and even this form must be of unusual occurrence, for Tait mentions that he has had clinical experience of two cases only.

Inguinal ovarian hernia may exist either as a congenital or an acquired lesion. The other forms never can be congenital.

Pulch, in a study of 78 cases published in the *Annales de Gynæcologie* for November, 1878, of inguinal ovarian hernia, defines 54 as being of congenital origin; and Langton, in a paper contributed to the "St. Bartholomew's Hospital Reports," confirms the more frequent occurrence of the congenital form. In 3,495 cases of inguinal hernia occurring in females of all ages over the first year of life, there were observed only 24 examples, or 1 in 145, as againt 1 in 14 congenital cases. According to Langton, therefore, this condition is not of such rare occurrence as is generally supposed; and it may easily be explained when we remember the anatomical conditions which favour the production of ordinary congenital hernia as well as permitting the descent of the testicle. We have the vaginal process of peritoneum projecting into and lining the canal of Nück, formed during intra-uterine life, and the conditions produced by the escape of the ovary into the canal, are exactly analogous to those accompanying the descent of the testis; in other words, as Langton puts it, "out of 67 instances 25 were associated with herniated intestine, and in these it was only after the intestine had been reduced that the extruded ovaries could be distinguished. Thus it will be seen they resemble in every detail the anatomical relations of the testis to the intestine in cases of hernia into the tunica vaginalis testis."

Bland Sutton, however, in his recent work on "Surgical Disease of the Ovaries and Fallopian Tubes," throws grave doubt upon the frequent occurrence of congenital ovarian hernia, as noted by Langton and others. "I do not deny," says Sutton, "that an ovary may occupy the inguinal canal at birth. No such case has, so far as I know, been recorded in which the ovarian nature of the herniated body has been proved by microscopical examination by a competent observer. Moreover, he is somewhat sceptical about the occurrence of the acquired form, for he says: "Cases described as hernia of the ovary in adults, based on clinical evidence, are valueless. When removed, either *ante-mortem* or *post-mortem*, their ovarian nature should be confirmed by the microscope."

The case which I have brought before your notice this evening is an example of this form; and not only is the clinical evidence convincing, but its true character stands the tests demanded by Bland Sutton.

A CASE OF HYDATID OF THE TIBIA AND KNEE JOINT.

By B. POULTON, M.D., M.R.C.S., LECTURER ON SURGERY ADELAIDE UNIVERSITY, AND HON. SURGEON ADELAIDE HOSPITAL, S.A.

◆

IN August, 1892, Mrs. E. W., aged 26, a native of South Australia and resident near Adelaide, walked into my surgery with the aid of a stick, limping slightly. She had come several hundred yards from her tramcar, and told me she was in the habit of doing her own domestic work. I was therefore surprised to find that her left knee was very much enlarged; its supra-patellar pouches distended with fluid; and that there was a small sinus on the outer side of the joint discharging thin, glairy fluid. The knee had been enlarged since January, 1891. It swelled up rather suddenly, and has been continuously painful. In November an "abscess" on the outer side broke, discharged its contents, and has never healed. Last June the sinus was incised by a surgeon.

I advised free lateral incision and drainage of the joint. Any cutting operation was declined, so for three months the limb was kept at rest, and I was only permitted to relieve the distension by removing its fluid contents.

The joint was aspirated eight times, from three to four ounces of purulent fluid being evacuated on each occasion. Iodoform emulsion was injected four times after aspiration. The distension of the joint being relieved, the escape of fluid from the sinus decreased, and in fact ceased for a time; but there was no definite improvement, and the sinus did not heal. Rest had secured cessation of pain, but œdema of the leg appeared, and the patient was beginning to lose flesh.

Her general health had been so far almost undisturbed. The temperature was always normal; appetite remained keen; she slept well at night.

In November I secured an unwilling consent to active operative measures, and she was admitted into the Adelaide Hospital.

On November 16, in consultation, it was determined to open the joint with a view to full examination and erasion or excision. No evidence of visceral disease was found, beyond slight impairment of movement and resonance at the left apex. The knee measured 2⅛ inches in circumference more than its fellow; its position was normal; the skin was pale and cool; there was distinct fluctuation; movement caused great pain; all the tissues about the joint seemed thickened. The leg was œdematous, and the sinus laid open plainly ran into the joint.

Under ether, the joint was opened by the curved infra-patellar incision. There was pus in the joint and slight thickening of the synovial membrane, which was pulpy in places, especially in its upper pouches. The patella was healthy. The cartilages were eroded in patches. Sawing off the bone ends, the femur appeared healthy, except for excessive vascularity. The cartilage over the outer part of the head of the tibia was eroded and the bone easily friable, breaking down under the finger. The outer half of the tibial head contained a cavity about the size of a large walnut, full of tapioca-like masses closely packed. Scraping these out, the surrounding bony wall was found to be invaded by numbers of similar growths. These were easily removed at the sacrifice of a large area of cancellous tissue. Removal of these suspected hydatid cysts and the infected bone left a very wide and deep excavation; and when I found that pressure on the popliteal region caused a free flow of pus between tibia and fibula, I amputated through the lower third of the thigh. At the time of operation hydatid disease was suggested by the appearance of the small crumpled cysts in the tibia, none of which, however, were bladder-like, nor even visibly distended with fluid. An examination of the limb afterwards demonstrated an abscess cavity the size of a bantam's egg, invading the popliteus muscle and containing several collapsed hydatid cysts, and a smaller cavity occupied by another hydatid.

Under the microscope the tapioca-like masses from the tibia presented the well-known linear fibrillation of hydatid membrane. They were not confined in a mother cyst; there was no adventitious membrane. No hooklets nor scolices were observed. A longitudinal section of the tibia discovered three small separate cysts, each about the size of a pea, in the inflamed cancellous tissue, the lowest being four inches from the upper extremity; there was no mother cyst in the head of the bone, and no free cyst was found in any of the pouches of the joint.

The hydatids in the soft tissues of the ham presented no special features, but had died and lay in abscess cavities which were mainly efficient in causing the œdema of the leg. The parasites in the head of the tibia are that rare form *echinococcus multilocularis*, described by Leuckart, who says it occurs almost exclusively in man, and indeed with few exceptions, in the liver. The late Dr. Davies Thomas quotes Ott as stating that it has also been observed in the tibia, the cranial bones, and in the bones of the pelvis. Dr. Thomas thinks there is no satisfactory evidence of its occurrence in bone, and that Ott's cases were merely instances of hydatids partly collapsed and contained in loculi of the affected bone. The earliest record of this form seems to be that of Buhl, 1852. Virchow in 1855 showed its true nature, and that it had nothing to do (as had been supposed) with cancer or alveolar colloid. (Thomas.)

Noteworthy points in the present case are : The freedom with which the limb was used, even after a sinus was established and the joint was distended with fluid; the absence of intense pain, such as obtains in abscess of the tibia ; the freedom from a general febrile condition; the wide distribution of the parasites, there being several isolated cysts far away from the main colony, some in the bone, some in the soft tissues.

This fact, coupled with the very wide destruction of the head of the bone and the abscesses in the ham, justified amputation.

The amputation wound healed satisfactorily, and the patient was discharged on the 26th day with a sound stump and getting about on crutches.

She has not up to date, April, 1893, developed any lung mischief, and is enjoying her usual health.

During ten years 267 cases of hydatid disease were treated in the wards of the Adelaide Hospital. This is the only one found affecting bone.

April 28, 1893.

A CASE OF ENDEMIC HÆMATURIA.

BY LEONARD L. SEABROOK, M.B. ET CH.B. AD., RESIDENT MEDICAL OFFICER ADELAIDE HOSPITAL.

◆

As this is a disease seldom seen in Australia, perhaps a few notes on a case which was under the care of Dr. Poulton, Honorary Surgeon to the Adelaide Hospital, and by whose kindness I am allowed to report it, will not be uninteresting.

It is unnecessary for me to give a description of this disease, as it will be found in most text-books on medicine, but the article by Dr. Fagge is, I think, one of the best.

T. M., *æt.* 20 years ; single. Occupation, painter ; born in New Zealand ; admitted July 30th, 1892.

Patient complains of passing blood in his urine during the last 16 months. He says that three-and-a-half years ago he went to Africa, and since then has lived at Durban, Newcastle, Dundee and Transvaal Republic respectively, whence he has recently arrived.

After living in Africa for about two years he was laid up with a fever for one week, and three weeks after this first noticed blood in his urine, since which, without exception, he has passed some blood each time he has micturated. The blood always appears at the end of micturition, the urine passed at first being quite clear. The blood is thick, bright red, and sometimes containing clots and pieces of membrane. Quantity varied from ʒi to ʒiv, but increased after any exertion, and lately by use of warm baths.

He also complains of pain over region of left kidney, and noticed this just before first appearance of blood in the urine, after the attack of fever. Pain is of a dull aching character, confined to neighbourhood of kidney, varies in intensity, and is especially severe after any exertion. During period of passing blood he has not complained of anything else, his general health being fairly good ; but during the last six months he has lost about 12 lb. in weight.

He contracted gonorrhœa ten weeks ago and still has a slight urethral discharge. Quantity of blood passed has increased since attack. It was followed by epididymitis, and left testicle is still enlarged and somewhat tender.

Patient says that he was accustomed for about a month just before onset of fever to bathe in a river every evening. No history of syphilis.

Previous Illnesses.—Always been healthy.

Family History.—Good.

Examination.—Patient is a fairly nourished, but rather anæmic looking, man. Temperature normal ; pulse 80, regular and strong ; nothing abnormal detected in heart or lungs ; abdomen not distended ; kidneys not palpable, but there is some slight tenderness over left kidney region on bimanual palpation ; inguinal glands not enlarged ; slight urethral discharge ; no sores or scars on penis ; left testicle slightly enlarged, somewhat hard and a little tender ; left epididymis also slightly enlarged ; extremities normal. Urine, dark amber colour, acid; specific gravity 1030; no sugar ; trace of albumen ; blood and pus present.

Subsequent Progress.—Symptoms of orchitis disappeared two weeks, and urethral discharge ceased three weeks, after admission. Temperature during the whole time in hospital was normal. Pain and tenderness in left side gradually lessened, disappearing entirely after a fortnight's rest. The quantity of blood gradually diminished, and on August 9, for first time since onset, he micturated without passing any blood afterwards. The intervals during which he had no hæmaturia became longer, and on leaving the hospital he only occasionally passed at the most a few drops.

The urine was examined several times microscopically; but it was not until August 8 that the ova and embryos, both dead and alive, of bilharzia hæmatobia were discovered, subsequently detected always in the blood passed, and were especially numerous in the membranous-looking clots. The urine gave no reaction for albumen unless blood was present.

On August 24, urethritis having subsided, patient's bladder was examined by means of the sound. The instrument during manipulation seemed to pass over a slightly corrugated surface, but no roughness or stone detected. About a quarter-of-an-hour after sounding, patient passed some urine mixed with blood, which, on being examined microscopically, showed ova and embryos of bilharzia hæmatobia.

As the patient was desirous of returning home to New Zealand he was discharged on August 30, 1892, since which, it is to be regretted, nothing more has been heard of him or his subsequent progress. On leaving the hospital he was stouter, and was not so anæmic looking. Subjectively he complained of nothing, feeling very well and strong, and only passed one or two drops of blood after micturition occasionally, several days elapsing without any sign of hæmaturia.

Treatment.—Patient was confined to bed entirely, except during the last week, when he was allowed to get about; and it was found that exercise during that period did not increase the quantity of blood passed or cause him any pain. Hot hip baths were ordered both morning and evening, but as the hæmaturia increased after their use they were discontinued.

Potassium iodidi, oleum santali and cubebæ were prescribed internally, but the patient seemed to improve more rapidly on a mixture containing the two latter drugs combined.

Before concluding, I may say the symptoms simulated those of stone in the kidney, and the possibility of them being due to the existence of bilharzia hæmatobia were only suggested by the fact that the patient had arrived recently from South Africa.

A lesson to be learned from this case is that in cases of hæmaturia, when surgical cause cannot be readily discovered, search for the embryos and ova of this parasite should be made, the detection of which may clear up otherwise an obscure case. I need hardly add that the presence of the embryos and ova is diagnostic.

NOTES ON A CASE OF EMPYEMA OF ABDOMINAL ORIGIN.

By R. H. Marten, L.R.C.P. Lond., M.R.C.S.E., M.B. et Ch.B. Camb.

◆

On November 26, 1892, I received a telegram from Hergott Springs from a gentleman, saying he was bringing down his invalid son to see me.

They arrived on the evening of November 28, having travelled some 750 miles by coach and train. The patient, aged 10½, looked very ill; was greatly emaciated; of a dirty yellow complexion. His breathing was hurried, and he had a slight cough. He had a good family history, no lung trouble being known amongst any of his relations. The boy himself had always enjoyed excellent health; had been very active, going in greatly for horse exercise, having always lived on a station.

Present Illness.—Began on November 7 with acute pain situated below and to the right of the umbilicus; diarrhœa and vomiting, attended by fever. The pain ceased on November 13, but the feverish symptoms still continued. On November 21 cough came on, and on next day patient began to expectorate a purulent fluid, which his mother described as smelling like fœces. On November 23 he left for Adelaide, and stood the journey fairly well.

His present state showed a temperature of 102° F.; cough; expectoration of purulent fluid having a distinctly fœcal odour, with a dull area, with loss of V.R. and V.F. in the right axilla, which yielded offensive pus to a hypodermic needle. There was slight tenderness over the region of the cœcum.

I sent him to the Private Hospital, and on November 30, with the assistance of Drs. Poulton and Swift, I opened the right side of the chest in the mid-axillary line. Nothing escaped on first inserting the finger, but on turning it down inside the eighth rib a rounded swelling was felt, which easily yielded to pressure of the finger and allowed several ounces of pus to escape, which we all noticed had a distinctly fœcal odour. A drainage tube was inserted, and the boy made an uninterrupted recovery, his temperature coming to normal in a few days; all cough ceasing; appetite and flesh being rapidly regained.

He left the hospital in three weeks, apparently quite well, and arrived back at the station on January 3, 1893, perfectly well in every way.

He remained well and exceedingly active till January 25, when without any apparent cause he was again attacked with pain just above the right groin; fever, with vomiting and diarrhœa; distension of the abdomen; great flatulence. His mother says he used to lie on his right side with his knees drawn up. He was treated by hot applications to his abdomen, which relieved the pain; but his sickness and retching continued till between 4 and 5 p.m. on the 28th, when he had a severe attack of retching, lasting three or four hours, and began to vomit up large quantities of an odourless, dark brown liquid, which stained all clothing like wine stains, and finally simply ran from his nose and mouth without any effort. He had cold sweats, a pinched face, and acute general abdominal pain, and died during the same night.

On looking over this case I think there can be very little doubt but that the child in the first illness had an ordinary attack of perityphlitis, ending in an abscess, which followed an unusual course by the pus travelling up the right psoas and entering the thoracic cavity, giving rise to the fœtid expectoration and the abscess which I opened in the right axilla.

We had no doubt when he was down here, from the fœcal odour of the pus, that the matter had originally come from the abdomen, and from the history it was probably perityphlitic. The second attack which he had away in the far north I take to have been a relapse of his abdominal trouble with perforation into the peritoneal cavity, which evidently set up acute peritonitis, ending in death.

I have never come across a perityphlitic abscess finding its way into the thoracic cavity before, but from the anatomical relations of the cœcum and its appendix I can see no reason why it should not take this course.

If I ever had a case in any way similar to this I most certainly should keep the patient in town for a lengthy period; and if the boy had been down here when his second attack occurred, I should have done a laparotomy and removed the appendix. In fact his parents were making preparations for another journey to town to have another operation, if necessary, when he had got over the second attack, if the fatal termination had not occurred.

MONTHLY Meeting, held at the Adelaide Hospital on 25th May, 1893. Present: The President (Dr. Way), Vice-President (Dr. Poulton), Drs. Hayward, J. C. Verco, Swift, C. G. MacLeod, Teichelmann, Clindenning, J. A. G. Hamilton, Powell, T. K. Hamilton, Brummitt, Corbin, Sweetapple, A. A. Hamilton, Leschen, Rogers, Harbison, Seabrook, Michie, Marten, and the Secretary (Dr. Lendon). Also Messrs. Irwin, Cudmore, and Dr. Gerald Hayward, as visitors.

DR. ROGERS' paper was discussed by Drs. J. C. Verco, Hayward, and Lendon, and Dr. Rogers replied.

DR. C. G. MACLEOD read his paper, which was discussed by Dr. T. K. Hamilton.

DR. MARTEN read his paper and Dr. J. C. Verco read some notes, which were commented upon by Drs. Hayward, T. K. Hamilton, Lendon, Swift, and Brummitt. Drs. Marten and Verco replied.

ELECTRIC LIGHT ASTHENOPIA.

BY CHARLES G. MACLEOD, M.A., M.B., CH. M. EDIN., ACTING HONORARY OPHTHALMIC SURGEON TO THE ADELAIDE HOSPITAL.

WITH the general recognition of the obvious advantages of the electric light on general hygienic grounds, and the extension of its use for industrial, domestic, and general purposes, attention has from time to time been directed to its effect on the eyesight as compared with the other sources of artificial illumination it is superseding.

Ten years ago Emrys Jones, of Manchester, collated a series of cases of conjunctivitis with intense pain and photophobia among those engaged in its manufacture; and some years later Felix Ferrier, of Paris, and Maklakoff, of Moscow, and others, added the sum of their experience to completing the symptom-complex of eye trouble directly due to exposure to its influence.

Increased improvement in the details of the production of the light, and additional safeguards in its use have brought the number of such cases down to a minimum; and even here carelessness on the part of the sufferer, or other purely accidental circumstance can often be traced.

From the stray cases occasionally met with, and which must necessarily become steadily rarer, I have selected three which I had recently under observation. Collectively they include all the leading features met with in the condition, and individually they are striking instances of its several phases.

CASE I, *æt.* 26, clerk in a large drygoods warehouse in which arc lights of 2,000 candle power are employed, came complaining of aching pain at the back of the eyeballs, photophobia, and slight lacrimation, also of indistinctness of vision and inability to maintain a clear image of an object for any length of time. On closing his eyes after being exposed to light, he sees after images, usually of a reddish or pinkish tint.

While working on the ground floor of the building he had suffered no inconvenience, but a month previously he had been transferred to a recently-added up-stairs gallery. His eyes were thus brought almost in a direct level with the light, which was enclosed in a plain glass globe.

R. V. $\frac{6}{36}$, L. V. $\frac{6}{24}$, not improved; conjunctiva slightly injected; pupil contracted, active; fields concentrically contracted, more so on second examination, taken immediately after the first; positive central scotomata.

A coin appears to be oval in shape and to increase in size when moved outwards from the fixation point.

Ophthalmoscopic Examination.—Media clear; slight hypermetropia; no astigmatism; fundi normal.

CASE II.—E. M., 24. Fellow worker in the same establishment as the foregoing patient, and exposed to similar conditions.

The lids were swollen and painful, and the skin of the whole orbital region was red and mottled with dusky brown patches of discolouration. Conjunctiva greatly injected and chemosed, especially that part exposed by the palpebral fissure. Intense photophobia and blepharo spasm, and copious muco-purulent discharge. Slight desquamation of corneal epithelium; pupils contracted, very sluggish.

Symptoms had become greatly aggravated within the 24 hours prior to examination. Previous to that only complained of smarting pain under lids occasionally, and slight lacrimation.

CASE III.—J. B., 33, was employed at the engine generating the arc light for a large boot manufactory. One part of his work was to keep the light at the required brilliance, necessitating frequent watching of the standard lamp, which was 2,500 candle power and enclosed in colourless transparent glass.

He had been engaged at this work for several months, but his eyes had only troubled him for some weeks. He complained of shooting pains in the eyeballs, and of his sight becoming worse. Sees a grey haze between his eye and an object looked at, and frequently sees rings of red colour round it. He states that he was provided with dark glasses by his employers, but had neglected to wear them.

Vision, $\frac{6}{60}$ in each eye, not improved; slight conjunctival hyperæmia and faint zone of ciliary injection; pupil contracted, acts very slowly to light and accommodation; fields small; persistent, positive scromata; metamorphopsia and micropsia as in Case 1.

Ophthalmoscopic Examination.—Media clear, Hy. 1·50 D. No astigmatism. Discs extremely hyperæmic, differing little in colour from surrounding fundus; margins not blurred and can be traced throughout. No alteration in size of retinal vessels.

Fine changes at macula—apparently minute hæmorrhages—and considerable massing of pigment in same region.

The three patients suffered from general malaise. Restlessness and sleeplessness were marked symptoms in Cases I and III, and to a less extent in Case II. The antecedents in each case were satisfactory, and as the presence of organic disease or other determining factor was carefully excluded, there is no doubt the light was the direct cause of trouble in each case.

The leading feature in Case I was functional retinal exhaustion, with no ophthalmoscopic signs of disease, contrasting with Case III, in which structural changes were present. Case II is typical of severe inflammation, limited chiefly to the superficial tissues of the eye. To this Szubinski gives the name of "Ophthalmia photo-electrica." We have no English equivalent for the German word *Ueberblendung*—a generic term including the whole train of symptoms that may follow exposure to powerful light.

The pigmentation of the skin occurs as a trade disease among furnace men, glass workers and others exposed to extreme heat. Maklakoff found it a severe and constant symptom among workers in a factory where the arc light was used for soldering metals. He produced it experimentally on himself, and considered it due to the chemical rays—a fact afterwards proved by Wedmark.

The causes of red vision (erythropsia), so common after cataract extraction, have been keenly debated; but here fatigue of the blue percipient elements of the retina is a sufficiently feasible explanation.

The alteration in the shape (metamorphopsia) and size (micropsia) of objects, due to an alteration in the relations of the retinal elements to each other, is an interesting symptom, occurring in the one case with, and in the other without, visible evidence of the change. Deutschmann considers many of such cases due to coagulation of albumen.

Recovery in Cases I and II was speedy and complete. Absolute rest in a darkened room for some days, the administration of bromides, and in the latter case treatment of the local condition on general principles, acted like a charm. Green spectacles, as being most readily obtainable, were prescribed to be worn for some weeks, though possibly the red and green combination employed in the large continental factories has an advantage. On examining both cases three weeks later all subjective symptoms in Case I had disappeared: vision=$\frac{6}{6}$ in each eye; fields normal. In Case II no trace of active inflammation was visible. The skin had partly desquamated, and only very faint traces of pigmentation could be seen. Both patients returned to work (the lamps in the meantime having been readjusted and suitably shaded), and felt no further discomfort.

The third case was slower in its course. This patient was treated on similar lines to the first, with the addition of atropine and cocaine locally. In six weeks all injection had gone; the pupils acted readily, and the discs were almost normal in colour and contrasted distinctly with the red colour of the fundus. In the yellow spot region the minute clots already referred to were smaller and fainter, although the pigmentary disturbance remained *in statu quo*. The scotoma was fainter, and vision came up to $\frac{6}{18}$, with full fields. The patient changed his employment, and was shortly afterwards lost sight of.

The *causa mali* in all recorded cases of eye trouble has been the arc light. There are no cases in evidence of bad effects following the use of the incandescent lamp. The two varieties of electric light differ materially in constitution and properties. The former owes its origin to Davy, but there is little comparison between the crude experiments of the inventor and the Voltaic lamp of the present day, or even between the latter and the earlier forms in use less than 20 years ago. If two pieces of carbon in the course of a circuit are separated from one another by a slight interval, and if the electric current is sufficiently strong, a brilliant light, taking the form of an arc, is produced between the two poles, due to the high resisting power of the latter. These poles consume rapidly incandescent particles of carbon passing in the direction of the current, leaving a concavity instead of a convexity on the positive pole and forming an irregular deposit on the other. As the interval between the poles widens, the light is extinguished by the interruption of the current, the latter not being strong enough to bridge the gap. Various devices have been employed to maintain automatically the proper interval between the terminals and lessen the waste of the latter, ensuring a steady and durable light, but as yet with incomplete success.

The incandescent system is a later development, and is obtained by passing an electric current through a non-conducting substance *in vacuo*. After a series of experiments, Edison was led to adopt a carbonized filament of bamboo as the best medium, but many other substances answer equally well. In the Maxim lamp cardboard is used, and a filament of cotton thread in Swan's. The initial difficulty of the too rapid disintegration of the filament has been got over, and a steady and lasting light secured.

Taking sunlight as the standard of the most perfect means of illumination, and assuming that the more an artificial light conforms to this spectroscopically the better it is for the eyesight, as from practical experience is the case we find the constituents of the former to be in the following proportions:—Red, 14; green, 13; blue, 5; violet, 1. Kerosene shows a greater proportion of red and a smaller quantity of green and blue. The arc light approaches sunlight at the red end af the spectrum, but has an excess of blue (8) and ultra-violet (10) rays—those most apt to produce retinal fatigue—besides having numerous bright lines throughout the spectral band, which add greatly to its brilliance. The incandescent light is free from excess at either end of the spectrum. For long it was a moot point whether the bad effects of the arc light were due to the luminous, thermic or chemical rays. Charcot and Foucault suggested the advisability of intercepting the last by uranium tinted glass; but the ingenious experiments of Wedmark, of Stockholm, settled the matter conclusively. The Swedish observer proved first of all that the ophthalmia was due to the direct influence of the light on the exposed part, and was not a reflex of retinal irritation. This he did by exposing the eye of a rabbit to a strong arc light with a small screen placed in front of the pupil. Intense conjunctivitis was produced, and desquamation of the cornea followed. By reversing the process, and leaving only the pupillary area exposed, a slight corneal haze corresponding to the latter was the only result of irritation. He next showed that by depriving the light of its blue and ultra-violet rays by means of an intercepting medium, which left the luminous intensity unimpaired, the front of the eye was unaffected by exposure; finally proving by means of the thermometer that the changes were independent of the heat rays.

Apart, however, from the quality of the light, its concentrated brilliance and inconstancy favour retinal fatigue. The chemical rays can be cut off and the brilliance diffused by suitable media, and if care be taken to have the lamps placed at a sufficient height above the line of vision, they are practically innocuous. Until, however, the last objection has been overcome and steadiness secured, the arc light will remain as unsuitable for indoor purposes as the other variety is suitable.

Its excellent quality, absolute steadiness and ready adaptability, combined with the absence of heat and atmospheric vibration—in themselves fruitful sources of ocular discomfort and trouble—make the incandescent lamp in every respect an ideal illuminant.

MEDICAL ASSOCIATION OF QUEENSLAND.

THE Monthly General Meeting was held in Brisbane on Thursday, May 11. Present: The Hon. Dr. Taylor (in the chair), Drs. Brockway, Marks, O'Doherty, T. Bancroft, Hirschfeld, and P. Bancroft. Visitor: Dr. Booth. The minutes of the previous meeting were read and confirmed.

DR. P. BANCROFT exhibited a man, aged 30, with tumour of the liver extending down into the right iliac region. To the left it extended to the spleen, which was slightly enlarged; there was no jaundice. The man was following an active occupation and was not aware that anything ailed him.

DR. BROCKWAY exhibited a case of locomotor ataxy and one of lateral sclerosis, and read notes. The cases were of interest, as showing well the differences between the two diseases.

DR. BROCKWAY also read notes of a case of aphasia and agraphia which had been under his charge for six weeks, during which time the patient had been taught to repeat some 300 words and to utter a few simple sentences, such as "How do you do, doctor!" "Good morning, father!" "Wait for me!" &c. The case was of five years standing, and had, during that period, learnt to speak about a dozen words. He was 18 at the time of the occurrence of aphasia, and 23 when he came under Dr. Brockway's care. Since returning home has made a little progress. He suffered also from epilepsy. The greatest difficulty was experienced in teaching him to read; in fact the attempt was abandoned as hopeless, though he appears to read the newspapers with interest and understanding.

DR. THOS. L. BANCROFT showed a photograph of the hands of a man presenting an uncommon papillomatous condition of the skin, which in this case had been present for twenty years and had not benefited by treatment. He gave a microscopic demonstration of some pathogenic bacteria, viz., those of leprosy, tuberculosis, anthrax, pneumonia, symptomatic anthrax, gonorrhœa. actinomycosis, the streptococcus pyogenes, and staphylococcus pyogenes aureus. The coccus in the pus of a case of infantile vaginitis, which appears to be identical with the gonococcus. The coccus of the pus from the festering sore commonly known as Barcoo rot.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE 106th general meeting was held at the Royal Society's Room, Sydney, on Friday, 5th May, 1893. Present: Drs. Worrall (President), in the chair, Sydney Jones, Fiaschi, Clubbe, Crago, Milford, Jenkins, Pockley, Wm. Chisholm, Langhorne, Huxtable, Jamieson, Roth, Martin, Jarvie Hood, Maher, Edwards, T. M. Kendall, Newmarch, Foreman, Lloyd, McKay, Clay, Arthur, Bennet, Wright, Traill, Todd, Hankins, Brady, Quaife, A. Parker, Lennhoff, Steel, Thring, Coutie, Money, the Hon. Dr. Creed, M.L.C., G. A. Marshall, West and McMurray. Visitors: Drs. Neill and Murray Will.

The minutes of the previous meeting were read and confirmed.

The President announced the election of Dr. Keenan, College-street, Sydney, as a member of the Branch.

The **HON. DR. CREED**, M.L.C., read some notes of a "Case of Asthma treated by Hypnotism." The patient was exhibited, and examined by the members.

A CASE OF ASTHMA TREATED BY HYPNOTIC SUGGESTION.

BY J. M. CREED, L.R.C.P., M.R.C.S.E.

S., *æt.* 52, but who looks much older, a shoemaker by trade, suffered every winter since 1879, whilst living at Dorking in Surrey, in England, from chronic bronchitis. He got worse each year, until, in 1889, he determined to come to Australia in search of a warmer climate. He at first lived in Brisbane, but afterwards moved north to Maryborough. His trouble seems to have been confined to constant cough and much expectoration, until 1891, when he got violent attacks of dyspnœa, which, though under careful treatment, gradually became worse, until he had to leave Queensland for Sydney, where he arrived in November, 1892. He was for a short time rather better for the change, but gradually relapsed to a worse state than ever, the difficulty in breathing being always present, with attacks of greater severity recurring at frequent intervals, accompanied by distressing cough with much expectoration. He was, when I first saw him on April 3, unable to walk up stairs without resting, could not sleep except propped up by a number of pillows, and was always haunted by a dread of impending suffocation. He had received very little relief from treatment of any kind, but used, when assailed by specially severe attacks of difficulty of breathing, to inhale the smoke of Himrod's Asthma Cure, which was resorted to by the late Earl of Beaconsfield during his last illness I recommended him to submit to hypnotization, and on his consenting, I was able to send him at once into a state of somnambulism, during which I suggested to him that his spasm would be less, his breathing easier, and that his cough and expectoration would improve. I repeated this procedure every day for ten days, but he expressed himself as feeling much relieved on the third, as he then slept with only one pillow. Before the tenth he was free from respiratory distress, having hardly any cough, walking upstairs without difficulty and with very considerable speed in the streets. He has continued to improve to the present time, expressing himself as now feeling better than he has done for years. Though lately he has not had them, for a portion of the time since he has been under hypnotic influence he has had occasional modified attacks of dyspnœa; and as these generally occur when he is not near me, I have given him a written order "to sleep when he reads it, and to awake after five minutes, breathing freely." This he always carries, and he tells me it has never failed him, though he has not found it necessary to resort to it during the last week.

I may say that he is now suffering from numerous polypi in both nostrils, in regard to which he was told in England that he was too weak to bear the operation for their removal. I did not remove them before he appeared before the Association, as I wished the hypnotic cause of his recovery from asthma not to be rendered questionable by unimpeded nasal breathing, which will be consequent on their absence.

Dr. Arthur said that Dr. Creed deserved the thanks of the members for having introduced this case. Seeing one case like this was better than reading the description of 100. He (Dr. Arthur) remembered treating a girl of about 19 years of age for asthma. She had been suffering severely for several years, and not been able to lie in bed for over a year. She smoked two or three cigarettes nightly. She was hypnotized, and the first night she slept for three hours, and continued to do very well.

Dr. Wm. Chisholm said if the case had been brought forward with a view of convincing unbelievers of the value of hypnotism in cases of asthma, he could not quite accept it, as asthma was essentially an erratic disease. The man exhibited by Dr. Creed had only been in Sydney since November of last year, and there is no disease which is benefited by change of climate more than asthma; therefore this man might possibly have been improved in health, even if he had not been hypnotized. In some cases asthma had been brought about by fear. It is, therefore, to be believed that it might be inhibited by hypnotism.

Dr. Creed said the case had not been submitted with a view of convincing unbelievers, but to show that hypnotism is a valuable adjunct to medicine; and in this particular case very marked improvement had taken place in a very short time. The man will be submitted to the members again, if possible, on some future occasion, when it will be seen whether the relief is permanent or not.

Dr. Pockley read the following notes on a Case of

CHIP OF STEEL IN VITREOUS HUMOUR—REMOVAL BY ELECTRO-MAGNET.

By F. Antill Pockley, Hon. Ophthalmic Surgeon to the Prince Alfred Hospital, Sydney.

Mr. O. C., engineer's apprentice, aged 18, consulted me late at night on 24th January, 1890, having been struck in the right eye the previous morning by some chippings of steel, several of which had been removed from the conjunctiva at the time of the injury.

Examination showed, in addition to the conjunctival wounds, a small linear perforating wound at the lower and inner corneal margin, and a corresponding wound in the base of the iris. The anterior chamber was shallow; tension much diminished. The lens was clear as far as could be seen without dilating the pupil, which I did not wish to do. Lying in the lower and inner part of the vitreous, near the equator, a foreign body, with the glistening edge characteristic of a piece of metal, was visible, appearing under the magnification of the media about 10m.m. long and 3 wide. The bottom of the vitreous chamber was occupied by numerous large black clots from hæmorrhage from the vascular ciliary body. Vision was $\frac{6}{36}$.

The course the foreign body had taken was evidently through corneo-scleral junction, base of iris and ciliary body, apparently just missing the lens. I advised an immediate attempt to remove the foreign body, and in the event of failure to be allowed to enucleate at once; and after consultation with Dr. Maher, who gave the same advice, permission was given. Dr. Maher kindly gave chloroform and assisted me with the operation.

The conjunctiva and Tenon's capsule were divided between the internal and inferior recti muscles, and the edges of the incision held apart. A meridional incision was next made through sclera, choroid and retina near the situation where we judged the foreign body to be. The finest point of Snell's electro-magnet was then introduced through the incision, and on withdrawing it after the second introduction the chip of steel came out with it. It was about 3m.m. by 2m.m., and ½m.m. thick. The conjunctival wound was sutured, atropine instilled, and the eye bandaged. Practically no vitreous escaped. Antiseptic precautions were observed throughout.

The patient was kept in a dark room for a fortnight, atropine instilled regularly three times a day, and iodide of potassium given internally.

February 14.—Injection all gone; tension normal; vision $\frac{6}{9}$; still a few blood clots in vitreous and cicatrix of operation wound seen with ophthalmoscope; dark glasses to be worn.

February 19.—Vision $\frac{6}{9}$; with +0·75D. $\frac{6}{6}$; no clots visible; leave off atropine and iodide of potassium.

February 26.—C. vision=$\frac{6}{5}$ (*i.e.*, better than the normal), and eye quite strong.

At this time he got ill, and went to the country. His mother wrote me on April 25: "He has just returned from Mudgee quite well again, the injured eye without a blemish, and he tells me that the sight is as good, if not better, than before the accident."

I have read the notes of this case as I have an opportunity of showing you the patient to-night, over three years after the accident, with the eye still quite well, and vision perfect, the only evidence of the injury being the small mark at corneo-scleral junction, and on ophthalmoscopic examination a glistening white triangular patch showing where the knife entered the globe near the equator.

This is an instance of the excellent results that may be obtained with the aid of the electro-magnet in certain cases. Of course this was a particularly favourable case. The media were clear, and the foreign body could be clearly seen and located, and the patient came in good time, and was sensible enough to allow an operation without delay. Had the foreign body not been removed, the eye would almost certainly have been lost, and there would have been all the risks of sympathetic inflammation in the other eye.

DR. MAHER said he had treated some cases similar to Dr. Pockley's, but had not always been so successful. There is no doubt that early operation has a very great deal to do with the ultimate results of the case. The ophthalmic surgeons should be very grateful to Dr. Pockley for having exhibited this case.

DR. THRING read the following paper on

ON THE VALUE OF "ALEXANDER'S" OPERATION IN THE TREATMENT OF CERTAIN MALPOSITIONS OF THE UTERUS.

BY E. T. THRING, F.R.C.S., L.R.C.P. LOND., ASST. GYNÆCOLOGIST P.A. HOSP., SYD., AND CONS. SURG. LEWISHAM HOSP. FOR WOMEN.

◆

IT is, I think, generally acknowledged that there has been in the past, and even still is, a great deal of unnecessary stress laid upon the significance of uterine displacements. Too frequently aches and pains, and ailments of all kinds met with in women, are put down to malposition of the uterus, the aforesaid ills being described as reflex symptoms produced by the malposition. This is, in fact, too often a refuge for the destitute as regards diagnosis.

On the other hand, there is no doubt that many women have their lives rendered miserable by reason of the suffering caused by certain displacements of the uterus. The proof of this is that when the parts are restored as far as possible to their normal condition, the patient regains more or less completely her lost comfort. One of the most frequent causes of trouble is subinvolution of the uterus and its various so-called ligaments, together with the damage done to the pelvic floor and vagina, as the consequence of parturition, the result being that the large flabby uterus drops downwards and backwards, the fundus becomes bent backwards upon the cervix; and once this condition is started everything helps to intensify it, and the patient complains of bearing-down, backache, and sideache. Many and varied methods have been suggested for restoring the enlarged, retroverted, retroflexed uterus to its normal position and size, and the variety of the methods employed is in itself evidence of the difficulty of attaining the object in view.

My wish now is to discuss how far the operation of shortening the round ligaments in such cases of displacement is useful and justifiable. Such very opposite opinions are held by different gynæcologists as to the value of this operation, that it seems worth while enquiring into the reasons for this diversity of opinion.

In the first place we must recognize the fact that departures from the normal anatomical position of the uterus and its appendages do not in all cases produce symptoms, and it is therefore only in those cases in which we have good reason to believe that the patient's discomfort is definitely due to the malposition referred to, that we are justified in interfering at all. I think there is no doubt that much discredit has been brought upon Alexander's operation, as well as upon others, by the failure of surgeons to recognize this. As obstetricians, our object should be in the first place to prevent the occurrence of subinvolution of the uterus and its appendages and ligaments, and of damage to the uterine supports; but as these cases *do* frequently happen, how shall we best deal with them?

There is another class of cases in which uterine displacements are associated with very great misery and discomfort; I mean those instances which occur not very infrequently amongst young unmarried women, and which are *not* the result of parturition. Usually there is a history of chronic endometritis, extending over a prolonged period and generally accompanied by dysmenorrhœa and menorrhagia. On examination one finds a uterus often three inches in length, soft, flabby, retroflexed, and very often one or both ovaries dislocated downwards and backwards into Douglas' pouch.

Let us take an instance which is typical of the first class of cases to which I have referred, viz., those which follow parturition. The uterus is three to three and a half inches in length, heavy, soft; the peritoneal and round ligaments elongated and lax, the pelvic floor more or less damaged; the vaginal muscles stretched and possibly torn; and the perinæum lacerated. What happens? The uterus sinks low in the pelvis, bringing with it the anterior vaginal wall and base of the bladder; the fundus falls backwards, lying against the lower part of the rectum, and the cervix approaches the vulval orifice. The ovaries and fallopian tubes also become displaced downwards and backwards, the coils of small intestine press upon the anterior and upper part of the uterus, instead of lying behind it in Douglas' pouch, and all expulsive efforts, as for instance defœcation, tend to intensify the condition.

Our object is to restore the parts as far as possible to their normal size and position. To do this it is necessary to consider *all* the structures involved, and it at once becomes apparent that no *single* operative procedure is likely to succeed. We may push the uterus up by advancing the perinæum and restoring the pelvic floor; this still leaves the fundus uteri with a tendency to fall back, dragging with it the upper part of the broad ligaments and the uterine appendages. To remedy this a Hodge's pessary, or some modification, is used, which however, frequently fails to be of service because the enlarged and heavy fundus falls in the direction of least resistance, *i.e.* over the posterior bar of the pessary, backwards and downwards into Douglas' pouch; the circulation through the broad ligaments is interfered with, and the condition of congestion and endometritis is kept up. This result is still more likely to happen if the cervix is lacerated and the lips everted, thereby preventing the intra-vaginal portion of the cervix from being used as a lever for tilting the fundus forwards. We may restore the cervix to its normal condition by means of a plastic operation; still in some cases the fundus will not remain in the normal position of slight anteversion. Also, although we may have curetted the uterus with the intention of curing the endometritis, this speedily returns, because of the above-mentioned interference with the circulation through the broad ligaments, the *return* flow of blood being especially hindered by the dragging backwards of the broad ligaments. It is in such a case as this that it is suggested that use should be made of the round ligaments in order to draw the fundus forwards and upwards, thereby restoring the balance of the circulation and doing away with the tendency to venous congestion. The rapid decrease in size and weight of the whole uterus which follows the successful performance of the operation in such a case is most satisfactory.

Various other methods for raising the fundus and fixing it in position have been devised, such, for instance, as suturing it to the anterior abdominal wall. This method, however, is open to the very grave objection that, should the patient become pregnant after the operation, the normal rise of the uterus in the abdomen must inevitably be interfered with, and possibly grave complications, such as abortion, may result; besides which, adhesions of any kind in the abdominal cavity are to be avoided if possible, as they are in themselves a frequent source of discomfort, and a possible danger.

Again, it has been suggested that in cases where it is necessary to perform abdominal section, that the uterus, if retroverted, should be propped up by means of a glass drainage tube, the lower end of which rests in Douglas' pouch, the tube to be left in for 10 to 14 days, so that a cicatricial cord may be formed along its track which will keep the uterus in place. This method is of distinctly limited application, besides being open to the objection that the support is of the nature of an adhesion.

Let us take now the objections which have been brought against the operation for shortening the round ligaments:—

1. The result is said not to be lasting. That this is so in some cases is undoubted; but what operation in the whole range of surgery can be pointed out as being uniformly successful? And for this to constitute a valid objection to the performance of the operation, it must be shown that failure ensues in the great *majority* of cases; and this the advocates of the operation absolutely and emphatically deny. There is no doubt that success, as far as *permanence* of result is concerned, is due *first* to the selection of suitable cases, and *secondly* to the careful carrying out of the details of the operation. I have myself attended several patients in their confinements upon whom Alexander's operation had been done before pregnancy took place, and by examination after the period of involution was over I have satisfied myself that the uterus remained in its normal position. This is also the experience recorded by Mundè, Foreman, Gardener and others.

2. The risk of the operation is sometimes spoken of as being great, particularly by Mr. Lawson Tait, who generalizes from the experience he gained by doing the operation in *two cases*, in one of which he says the patient nearly lost her life as the direct result of the operation. His condemnation is most emphatic; but being based upon so small a number of cases, his opinion is not of much value.

3. One of the most tiresome complications which may happen is the breaking of one of the ligaments while traction is being made upon it. This can only happen when adhesions have taken place, which fix the ligament in its sheath and prevent it from running. In the only case in which I saw this happen, the adhesions were caused by a previous attack of pelvic peritonitis, and the practical result was that although the ligament broke, still the proximal portion remained fixed in the position in which it was before the operation, and the patient certainly was no worse off than before.

4. Failure to find the ligament is sometimes

spoken of; but this, I believe, is due to the fact that the anatomy of the part is not sufficiently borne in mind.

5. Hæmorrhage between the layers of the broad ligament may occur, causing a pelvic hæmatocele, and may be due to rupture of one of the veins running with the round ligament. Usually this is effectually prevented by means of the stitches which fix the ligament in the inguinal canal.

6. The operation has been said to cause a tendency to the production of inguinal hernia. I have never seen such a result, and certainly the closure of the inguinal canal by the stitches which fix the ligament, would, to my mind, *prevent* rather than facilitate the occurrence of hernia. As bearing upon this point, one continental surgeon has even gone so far as to advocate the complete opening up of the inguinal canal in order to expose the round ligament—a similar procedure, in fact, to Bossani's operation for the radical cure of inguinal hernia. This seems to be quite unnecessary and unjustifiable.

The above are, I believe, the chief objections which have been raised, and all of them seem answerable.

With regard to the selection of suitable cases, it is most important to make quite sure that the uterus is freely movable, and not bound down at all by adhesions.

Having reviewed the objections raised against the operation, it will be as well to refer to some, at all events, of the advantages claimed for the operation by those who advocate and practice it.

1. Freedom from risk to life.

2. Simplicity of the operation. Though I must say that, in some cases where there is a great deal of fibrous connective tissue in and about the inguinal canal, the procedure is not so perfectly simple as in cases where this is not so.

3 That the supports to the uterus, which are already provided by nature, are utilized, and nothing is done which can subsequently prove detrimental to the patient.

4. The permanence of the result in suitably selected cases, even after parturition.

It is now 10 years since the operation was prominently brought under the notice of the profession by Alexander, although it had been previously both suggested and carried into effect by others.

My object in bringing this matter before you was not so much to give expression to my own views on the subject, but to try and provoke a discussion and elicit an expression of opinion as to the best method of dealing with that class of cases to which I have referred. For it does seem to me to be distinctly of importance to arrive at a right and definite conclusion with regard to cases which are so frequently met with, and which cause so much suffering. If a certain method is of undoubted service, then why not use it? If, on the other hand, it is absolutely unjustifiable, let its condemnation rest upon a basis of fact.

There is no question but that our practice must to some extent be modified by the social position of our patient. If she is compelled to undertake household duties, or any occupation which necessitates exertion or prolonged standing, we are less likely to obtain a good result by anything short of operative interference than in the opposite case, where prolonged rest and treatment are possible. In the one case interference becomes almost a necessity; in the other, a matter of expediency.

MR. STEWART MCKAY said he had listened with great interest to Mr. Thring's paper on Alexander's operation, and he thought all present would acknowledge that Mr. Thring's views were fair and impartial. The speaker thought that the best way of discussing the subject was to try and answer two questions. Firstly, what cases of displacement of the uterus called for operative interference; secondly, if an operation were called for, was Alexander's a satisfactory one to select? As regards the first question, it must be remembered that the operation of shortening the round ligaments was first introduced for cases of simple retroflexion that defied the usual treatment, because it was held that a retroflexion in itself was a grave evil. This notion is rapidly passing away, and it is now generally acknowledged that the cases of retroflexion and retroversion that give rise to most trouble are those cases which are complicated by tubal disease or multiple adhesions. Any operation, therefore, in those cases which merely alters the position of the uterus must fail, as the chief factors are left untreated. The next cases of retroflexion in which severe symptoms occur are those in which the patients are virgins. The symptom complained of chiefly is dysmenorrhœa, and this, the speaker maintained, was not the result of the retroflexion, but was, in the majority of cases, due to developmental causes; hence no operation to alter the position of the uterus was called for. Lastly, there were the cases of retroflexion in which the uterus was large and subinvoluted, and the ovaries prolapsed. No one will deny that if the uterus can be restored to its proper position and kept there that the involution is aided, and that many of the symptoms complained of before disappear. He maintained, therefore, that surgeons were justified in resorting to an operation in these cases if they failed to keep the uterus in its place by the ordinary means usually tried. The question then arose, is the procedure of shortening the round ligaments in itself one that will cause the uterus to keep in its proper position? On this point Alexander himself was very emphatic, and showed by his practice that he did not think the mere operation in itself was sufficient, but that in addition to it intra-uterine stems must be used for various periods. Alexander says: "The stem must be kept in for a few weeks or a few months until the uterus has lost its power of recoiling. One of my cases recoiled after the lapse of three weeks, and was cured by the reinsertion of the stem for another month. Another case recoiled after a month, and was cured by the stem being retained another month. I spoiled a case completely by taking out the stem too soon." The speaker said that he considered that Alexander here virtually admitted that the operation of shortening the round ligaments would not, as its immediate result, bring about the fixation and maintenance of the uterus in a forward position, but that this was an after result, largely due to the continued use of intra-uterine stems. Therefore the objection to the operation now arose that, since it frequently took from four to twelve weeks to bring about the desired result, patients who have to earn their living cannot afford to remain in bed for these long periods. The speaker said the patient would have to remain in bed, because to take the stem pessary out would mean, on Alexander's own showing, that the uterus would recoil in many cases; while to let a woman go about her work wearing a stem was a practice he would not consent to, and he maintained that this was the opinion of the leading gynæcologists of the present day. Summing up his objections, the speaker read the following contra-indications and objections to the operation :

1. That the operation is useless and contra-indicated when any tubal disease is present.

2. That it is contra-indicated if there are multiple adhesions, since to break these down and have no control over the hæmorrhage would be dangerous, in spite of what Schultze has told us.

3. That the operation cannot be done in many cases because the round ligaments are not sufficiently developed, and as Zweifel and others have pointed out, that if the ligament on one side alone is shortened through the other giving way or not being developed, the operation always fails.

4. That hernia follows in at least four per cent. of the cases.

5. That the mortality was as great as in uncomplicated abdominal sections, viz., two per cent.

The speaker said he brought the last point forward because he believed that many of the cases that were now being treated by Alexander's operation would in the future be treated by abdominal section and hysteropexy.

He claimed for this method the following advantages :—

1. In simple cases the mortality was not greater than in Alexander's operation, and the results were more certain.

2. That if any tubal disease were found, this could be treated.

3. That if many adhesions were present these could be broken down, and the hæmorrhage would be then under control.

He would, in concluding, remark that the objection to hysteropexy, which Dr. Thring had brought forward, viz., that the growth of the pregnant uterus was interfered with, had been found to hold good in a few cases, while on the other hand the literature of the last few years had furnished reports of many uninterrupted pregnancies after this operation.

DR. FOREMAN said he had listened to the previous speaker, but certainly could not follow him in his conclusions. He (Dr. Foreman) had taken a good deal of trouble and interest in this operation, and had, with Dr. Worrall, done the first operation of the kind in Sydney, and never lost an 'opportunity of doing the operation now. Most people forget what it is done for, and what it will do. Of course there are many cases of displacement that one would not trouble to do the operation. The pelvic organs are well supplied with blood. It is easy for the blood to flow in, but it cannot so easily get out. This, then, causes trouble, and something must be done. With regard to young women, and especially in a country like this where there is so much horse-riding done—frequently you find displacements from this cause; and if the uterus is not put back into its place a great deal of trouble arises in after life. The non-success of Alexander's operation depends entirely upon the operator. With regard to the durability of the operation : He (Dr. Foreman) operated upon a lady seven years ago; she is now in perfect health, and is the mother of three children. In another case the woman has had four children since the operation. He (Dr. Foreman) had operated in about 200 cases with a mortality of two. One of these was one of the first 10 cases. Pus formed in the wound, and the woman had peritonitis. The other case died of tetanus. He (Dr. Foreman) was entirely in favour of the operation, but of course only operated when it was necessary and in suitable cases.

DR. SYDNEY JONES said he had had large experience of cases of uterine trouble, and was in the main at one with Dr. Thring and Dr. Foreman in the need for this operation in some cases. Some cases of retroversion can be cured by Hodge's pessary. If, however, the case is allowed to go on, of course the pessary is useless, and nothing short of Alexander's operation will do any good. He (Dr. Sydney Jones) had not done this operation, but had seen patients after the operation, and had not noticed any ill consequences. Labour had been of the ordinary kind when the woman bore children. .

The **PRESIDENT** (Dr. Worrall) said he complimented Dr. Thring on the lucid paper which he had given them on this important and difficult subject. He (the President) took a great interest in the operation, for it was originated by one who had been a very kind friend to him during the six years he had been in Liverpool, and he had assisted Dr. Alexander in studying the operation in the dead house before it was tried on the living subject. Referring to the question of retroversion not producing symptoms, he must differ from Dr. McKay. Retroversion did produce serious symptoms, which tended to progress, owing to the development of structural change. The objection to the operation that the uterus would be unable to rise during pregnancy did not apply, for the round ligaments, being parts of the uterus, underwent the same hypertrophy, and so accommodation to changing conditions was brought about. His own experience of the operation was limited to eight cases. In none had he the slightest difficulty in finding the ligaments except the last, when one ligament broke in pulling it out, and although the other was properly secured and a pessary inserted, the uterus now lies in first degree of retroversion. As he had seen during the last nine years probably more than a thousand cases of retro-displacement of the uterus, eight cases were a very small proportion to have operated upon in this way. It was partly due to his inability to find beds for the patients, partly to the number of cases in which there were adhesions—which meant salpingitis, and therefore, in his opinion, contra-indicated this operation—but much more largely to the fact that he thought he could cure the majority of cases by means of a pessary. The operation was contra-indicated in his opinion :—(*a*) when there were adhesions; (*b*) when the uterus was very bulky; (*c*) when there was great destruction of the pelvic floor (procidentia). It was indicated when the uterus, although movable and not too large, yet could not be kept in normal position owing to a want of tonicity in the muscular walls, which allowed the uterus to flex backwards over the post bar of the pessary. He used an Albert-Smith pessary after the operation, but tried to avoid a stem, which was dangerous, as it kept open the cervical canal and allowed the entrance of germs past the int. os, beyond which they did not, under ordinary circumstances, penetrate. His position, then, in regard to the operation was this—that he thought in the vast majority of cases of retro-displacement of the uterus no surgical procedure was necessary; but if it were necessary to resort to one of those at present in use, then this of Dr. Alexander, in safety, in facility of execution, and in permanence of result, was the best.

MR. THRING, in reply, said he did not think it necessary to say much, most of the points raised having been dealt with in the paper. The details of the operation and after-treatment had been purposely omitted, it being his wish to discuss the position of the operation rather than its technique. One statement made by Dr. McKay he must, however, contradict, namely, that the period of rest in bed necessary after the operation was three to four months. As a matter of fact, it very seldom exceeded 21 days.

THE WESTERN MEDICAL ASSOCIATION OF SYDNEY.

THE annual meeting of the Western Medical Association was held on Tuesday evening, April 18, 1893, at the Masonic Hall, Smith-street, Summer Hill.

DR. R. T. JONES, the retiring President, read his address, and was unanimously accorded a hearty vote of thanks for his exertions on behalf of the interests of the Society during his year of office.

The following officers were elected for the ensuing year:—President, Dr. Coutie; Vice-presidents, Drs. Traill and W. O. Maher; Council, Drs. R. T. Jones, McAllister, Collingwood and Frizell; Treasurer, Dr. Pilkington; Secretary, Dr. P. M. Wood; Auditors, Drs. Kendall and Maunder Jones.

The following members and honorary members were present at the meeting:—Drs. R. T. Jones, Coutie, MacSwinney, McNeill, Johnson, Kendall, Pilkington, Kirkland, Blaxland, McAllister, Hinder, Quaife, Frizell, Wood, Mullins, Worrall, Langhorne, Brady, Vallack, Sawkins and Marden.

Dr. Maguire, of Petersham, Dr. Elliott, of Summer Hill, and Dr. Parker, of Ashfield, were elected members.

After the meeting the members adjourned to supper, and a very pleasant evening was spent.

Braithwaite's Retrospect of Medicine (Vol. CVI., July-December, 1892), contains three papers by Drs. Brady and Hankins, Sydney, and Dr. T. K. Hamilton, Adelaide, reprinted from *The Australasian Medical Gazette* for 1892.

IN the February number of *The Journal for Gynæcology and Obstetrics*, a leading medical journal in the Russian language, published in St. Petersburg, appears the translation of four papers by Dr. Teichelmann, of Port Adelaide, Dr. Boodle, of Walcha, Dr. Maguire, of Petersham, and Dr. Crommelin, of Casino, respectively, from *The Australasian Medical Gazette* for May, June, and July, 1892.

IN an early issue we shall begin the publication of a series of posthumous papers of the late Dr. Davies Thomas, of Adelaide, on "Hydatid Disease in Australia," which are now being arranged and edited by his friend, Dr. A. A. Lendon.

NOTICE.

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN

MEDICAL GAZETTE.

SYDNEY, JUNE 15, 1893.

EDITORIAL.

DIPLOMAS OF HONOUR!

IN *The Argus* of May 11 appears an article relative to a scheme started by an ingenious Frenchman with the view of making money by pandering to the vanity of the *bona fide* inventor and assisting the swindling charlatan to deceive credulous people. It gives an official report, made by the Consular Service of the French Government, which speaks for itself. This says:—

"The 'Académie Parisienne des Inventeurs,' &c., consists, effectively, of a single person, Bœttcher by name, with headquarters at 28 Rue Serpente in Paris. His so-called academy has no existence in fact, and the diplomas and medals issued by him have consequently neither credit nor value. The business in which he is engaged bears evidence of being little more than a swindling scheme, devised for the purpose of imposing on the credulity of investors in America, and probably elsewhere, by playing upon their vanity. His traffic in diplomas and medals appears to be his sole means of support."

And then goes on to state:—

"M. Bœttcher, or as he calls himself, 'Professor' Bœttcher, has an office in the 'Hôtel des Sociétés Lavantes,' which is situated in the suggestively-named Rue Serpente in Paris. Here he receives correspondence and fees from inventors in many parts of the world, and here, doubtless, he composed the dazzling prospectus of his academy, which accompanies his circulars. The objects of the academy, it will be noted with satisfacton, are, according to the prospectus—1. To contribute to the progress of all which concerns public prosperity. 2. To discuss the value of the latest inventions and discoveries, and to assist inventors by its influence, its relations, &c., to find the proper ways and means to draw benefit from their inventions and innovations. 3. To entertain relations, to be followed up by a brotherly spirit between all its members! The prospectus goes on to state that the academy proposes and awards diplomas and medals to the authors of the most valuable inventions, and that 'the direction of the academy is confided to the director-manager for life, who takes the title of president.' M. Bœttcher is not above taking other things as well as titles, and the 'admission tax,' which he charges all his clients for membership of the academy, through which alone they can obtain tangible and speedy recognition of their abilities, is not forgotten in the prospectus. It amounts to £2, and the intimation is conveyed in fine Franco-English, as follows :—

'SIR.—We beg to inform you that after the examination of your last invention the academy has conferred upon you the title of corresponding honorary member *(membre d'honneur correspondent)* with attribution of the first-class diploma and the great gold medal (gilded). This honorific title will be of no expense for you, only if you would be desirous to receive the medal and diploma you would have to send us a money-order of £2 to cover admission fee, taxes, freight, &c., and we shall send both well packed and free of charge to your address. Trusting that our invitation will be favourably received, we are at your disposition in invention and patent matters according the statutes of the academy, which are enclosed, and we remain, gentlemen, your obedient servant,—Prof. BŒTTCHER, President.'"

The reason we have considered it necessary to refer to this pseudo institution arises from the fact that quacks and herbalists who advertise in the newspapers of Australia have of late made the possession of this "*gold* medal" and diploma a prominent feature in their announcements, and we have no doubt have found them a very effective aid in their brazen-faced deception of the sick and afflicted amongst the credulous public, who are so easily and, apparently, willingly gulled by these cheaply-purchased pseudo distinctions.

IS OPIUM SMOKING HURTFUL?

THE following extract, which we make from the *Asiatic Quarterly Review*, corroborates the emphatic statements to the same effect so repeatedly made after years of observation by Dr. Ayres, the Chief Medical Officer at Hong Kong. The result of the comparison made by Dr. Nightingale between the effect of opium smoking and the abuse of alcohol has always been the opinion held by ourselves:—

"Mr. A. P. Nightingale, M.B., C.M., says his experience is limited, but after nearly a year's work among the Chinese in Johore and the examination of, and making notes on, the subject of over 1000 patients as they passed through the hospital, he is of opinion that not only is the use of opium not an evil, but that in the majority of cases it is even beneficial in warding off or lessening attacks of fever and in enabling a Chinaman to perform heavy coolie labour with the thermometer at 150 deg., which no other race can do. If a man over-smokes himself—and one is astonished to find how few do so—he merely goes to sleep, and wakes again quite fresh. It never makes him quarrelsome; it enables him to stand a vast amount of pain, and is one of the very few pleasures of his life. Compare this with the use and abuse of alcohol. Mr. Nightingale believes that the more the opium question is inquired into the less harm will be seen to result from the use of this drug."

LETTERS TO THE EDITOR.

THE CASE OF "BELLAMY SOUTHERN."

(To the Editor of The Australasian Medical Gazette).

SIR,—The above name will doubtless be recognized as that by which the so-called "Memoryless Man," whose case attracted much attention in Melbourne in February last, was known. He was placed under my care on March 7, on his return to Albury after identification. A few notes of the case may prove interesting to some of your readers, though somewhat crude and hastily taken.

March 7.—He is a slight, muscular man, 5ft. 8in. high, with black hair inclined to gray, apparently 35 or 36 years of age, though really only 30. He has an anxious look, and is very restless; eyes very prominent and bloodshot; tongue slightly furred and inclined to the right when protruded; pulse 84, soft and compressible; temperature 98·5; bowels regular and appetite good; complains chiefly of sleeplessness and pain all over head, radiating from a spot four inches above the left auditory meatus and one inch from the vertex, which is tender on pressure; has also bursting feeling behind his eyes: pupils act freely to light and are of normal size. There are no signs of paralysis, except the deviation of the tongue, nor is there any loss of power in the limbs. He is quite sensible, answering any questions freely and correctly on anything which has happened to him since February 8, but by no questioning or suggestion can anything be extracted from him to show that he has the slightest recollection of anything prior to that date.

The following is his history, as given by his wife, up to January 6, when he left home on business to visit a neighbouring township, taking no luggage and being expected to return the same night:—Has been married two years, during which time he has been of a restless and rather irritable disposition, especially the last two months; has never slept well, and latterly hardly at all; has lately become very secretive, never speaking of his business, and resenting any allusion to it; has frequently had headaches and irritation of the left eye; was always steady, and till lately worked hard at his occupation, first as a piano-tuner and afterwards as insurance agent, but for several weeks had become very careless of all business. There had been no dispute or family reason for his disappearing, and he was always affectionate in disposition. Nothing is known of his movements from January 6 till February 8, on which day he was taken in charge by the Melbourne police, and he gives the following account of himself:—

He states that on that day he woke, and found himself lying on the grass under a tree at a place he afterwards found to be Brighton, near Melbourne. He was confused and could not understand the meaning of his surroundings, but presently got up and walked toward Melbourne, being guided in that direction by the fact that he was looking that way when he woke. He wandered about for some time till he saw people eating in a restaurant, and went in and sat down, and the waiter brought him food, which he ate. He then saw a man near him pay the waiter, and did the same. He wandered about trying to again find the tree where he woke, thinking it might help him to remember something about himself. Not being successful he walked all night, and next morning again took food at the same place and went on. That night he spoke to a man, who took him to a constable, and he was locked up for protection.

His history for the next few days is well known until his return to his friends. He did not recognize either his wife or child, and his wife states that he treats her just as he does any stranger. When in Melbourne he was taught many things, and learnt readily, but never offered to do anything till shown. He did not understand his marital duties till suggested to him as a test, but was quite competent. While in Melbourne he never slept without a sedative, and he complains now greatly of want of sleep.

He was ordered 8 grs. of pot. iod. with tr. cinch. every four hours, and to do without sedatives if possible. To be kept quiet and to take drives, and all interviewing to be stopped.

March 8.—Slept six hours. Head feels better.

March 9.—Slept nine hours continuously. Eyes less prominent and much less congested. Pulse 80. No headache and very little pressure behind eyes. States that he only knows his wife and child as such because he is told, and that he does not want to see anyone, it being so unpleasant speaking to people who know more of you than you do yourself. He is rapidly learning to read, keeping a dictionary by him to look out words he does not know.

He steadily improved, and on March 13 the pulse was 74. Was sleeping well. Has only had one headache, and that slight. The spot is still tender on pressure and there is a little soreness extending over vertex internally. Is driving out daily, but does not recognize any of the places, though in the habit of visiting them often during last year. His wife states that he is dropping into his old way of talking to the child without suggestion, and that his habits in his bedroom are exactly as before, only that he treats her just as he would a perfect stranger. He is anxious to go to church to see what is done, though he does not seem able to grasp any idea of religion. He will not play on the piano, because, as he says, "there is something wrong with it and he cannot say what it is, nor can he put it right, having no one to show him."

From this time he steadily improved, having but one headache, and on March 20 all sign of paralysis of the tongue had gone. The eyes were much less prominent and he considered himself well. He slept well and had a good appetite. Was ordered to continue mixture three times a day, which he did for two weeks. Feeling well he went to Melbourne to fill an engagement at the Waxworks, but did not stop long, going on to a relation in Tasmania. No sedative was taken from the time he came under my care.

Believe me, yours obediently,
ARTHUR ANDREWS, M.R.C.S.E., L.S.A. Lond.

Albury, N.S.W., May, 1893.

P.S.—May 25. There has been no return of memory.

We have received from Dr. Westbrook, of Richmond, a letter relating to the correspondence on the misunderstanding between Dr. Helsham and himself, published in last month's issue. It includes a communication purporting to be a copy of a letter on the subject, sent to him by a Mr. Wood, of the Hawkesbury Agricultural College. We do not consider Dr. Westbrook's letter suitable for publication in the *Gazette*, and find nothing in it to change the opinion expressed in our former editorial note, which was based almost entirely on his own communication to Dr. Helsham.

We have just received a letter from Dr. H. Martin Doyle, of Newcastle, on "Medical Advertising," in reply to one by Dr. J. B. Nash in our April number, which we will publish in next month's issue, together with a number of other letters which have been kept over from want of space.

CREMATION.

(*To the Editor of The A. M. Gazette*).

Sir,—This most important subject appears to meet with indifference from our citizens, but for what reason it is hard to say. It is one that deserves serious reflection, and my hopes were considerably raised after reading Dr. Creed's last address, and that a proposal was to be made to the Premier to erect a crematorium. I find, however, that the Premier does not see his way to recommend anything; and I can quite understand him, for the reason that his whole time is taken up in financing, or in other words, his whole self is taken up in the retrenchment scheme. But I sincerely hope that men of thought—men who must see the importance of this question—will take it up in the way it deserves, who know that it is only sentiment that intercepts its progress, and at the same time know how soon that would disappear if a crematorium were built and the system once adopted.

I would strongly recommend the plan of inhumating (lowering the corpse) instead of lifting it to a place in retort or furnace. This would remove, I think, a great deal of objection that exists at present. I would urge most strongly that this matter be kept prominently before the public, as at present a great deal of ignorance prevails on the subject, the whole process of funeral arrangements being generally misunderstood. Lectures throughout the colony, *or* Sydney only, would, I think, be of great advantage.

Yours faithfully,
C. BENNETT.

Bowral, N.S.W.,
22nd April, 1893.

[Our correspondent is in error in supposing that Sir George Dibbs is not in favour of cremation; but the Premier is perhaps unable at the present crisis to see his way to recommend the immediate expenditure of public money in the erection of a crematorium.—Ed. *A.M.G.*]

THE MONTH.

NEW SOUTH WALES.

The new Cottage Hospital at Bulli was opened by the Lieutenant-Governor, Sir Frederick Darley, on 20th May.

Messrs. Willcocks & Firth, contractors, intend to build a hospital in or near Murwillumbah, on the Tweed River, at their sole expense.

We regret to have to record the death of Mr. Fergus Malcolm Brown, L. *et* L. Mid. R.C.P. Ed., L. *et* L. Mid. F.P.S. Glas. 1871, who died after a lingering illness at Cootamundra on May 31. The deceased gentleman arrived in the colony in 1885, and after practising at Richmond for two years, he removed to Cootamundra, where he resided ever since. Dr. Brown was proprietor, and Medical Superintendent of the South Midland Retreat, Wansford (Eng.), prior to his departure for Australia.

We regret to have to record the death of Mr. Ernest Howard Goode, L.R.C.P. *et* R.C.S. Edin. 1884, who died at Granville, near Sydney, on 8th May, from obstruction of the bowels, aged 35 years. The deceased gentleman arrived in this colony in 1887, when he commenced practice at Port Macquarie; in 1890 he removed to Granville, where he practised ever since.

Mr. Ferdinand William Hutchison, M.R.C.S.

Eng. 1841, formerly of New Zealand and Honolulu, and late of Silverton, died at his residence, 36 Arthur Street, Leichhardt, near Sydney, after a long illness, on 20th May, aged 74 years.

The vacancy on the Committee of the Defence Fund of the Sydney Medical Association has been filled by the election of Dr. Joseph L. Beeston, of Newcastle.

Dr. Booth, a recent arrival, has been appointed Third Medical Officer to the Balmain U.F.S. Dispensary at a salary of £300 per annum.

Dr. C. P. B. Clubbe has removed from Randwick to Liverpool-street, Hyde Park, Sydney.

Dr. M. J. Collins, late of Clermont, Queensland, has settled at Fernmount, on the Bellinger River.

Dr. W. Cumming, late of Barcaldine, Queensland, has succeeded to the practice of Dr. T. J. McLoughlin, at Glen Innes.

Dr. E. Florance has removed from Braidwood to Cootamundra.

Dr. Thos. Harrison, late of Brewarrina, has succeeded to the practice of the late Dr. E. H. Goode, at Granville.

Dr. A. S. T. Johnstone has removed from Cudal to Tumbarumba.

Dr. E. R. Kavanagh, late of Junee, has settled at Cootamundra.

Dr. A. Watson Munro, of Liverpool-street, Sydney, has removed to Randwick.

Dr. F. H. Quaife, of Woollahra, has been appointed a member of the Medical Board of New South Wales.

Dr. J. Rees has settled at Nambucca, 356 miles N. of Sydney.

Dr. Grace Robinson has commenced practice at 42 College Street, Hyde Park, Sydney.

Dr. E. S. Tresidder, formerly of Glen Innes, has commenced practice at Bathurst.

Dr. R. D. Ward, of North Sydney, has been presented with an illuminated address as a token of the appreciation of the members of the St. Leonard's Lodge, G U.O.O.F., for his kindly attention during the 38 years he has occupied the position of medical officer to the lodge.

Dr. R. W. Young, on leaving Maclean for Milton, was presented by the leading residents with a very flattering address.

NEW ZEALAND.

Dr. C. T. Little, a graduate of the University of New Zealand, has commenced practice at Ravensbourne, a suburb of Dunedin.

Dr. H. K. MacLachlan has commenced practice at Hamilton, Waikato.

Dr. George Wilson has been appointed an honorary surgeon of the Palmerston North Rifle Volunteers.

QUEENSLAND.

Dr. R. B. Huxtable, formerly of Bodalla, N.S.W., has commenced practice at Croydon, the centre of an extensive gold field, 2,052 miles N.W. of Brisbane.

Dr. W. B. Kirkaldy, of Charleville, has been appointed a surgeon on the medical staff of the Queensland Defence Force.

Dr. A. J. Neale, late of New Norfolk, Tasmania, has succeeded to the practice of Dr. J. S. Hunt, at Hughenden.

Dr. J. B. Thackwell, late of Tenterfield, N.S.W., has settled at Cloncurry, he having been appointed medical officer of the local hospital.

SOUTH AUSTRALIA.

Dr. B. Poulton states that 267 cases of hydatid disease have been treated in the Adelaide Hospital during the last 10 years.

Dr. R. R. Frost has left Mount Barker, where he had been practising for the last 10 months.

Dr. E. C. Stirling, of Adelaide, has been created a Companion of St. Michael and St. George (C.M.G.)

VICTORIA.

In the Melbourne City Police Court, on 4th May, the Tyson Sanatorium Company, through its secretary, Harry Edwin Peate, was fined £5, with 10 guineas costs, for a breach of the Sale of Poisons Act. It was alleged by the prosecution that the defendant company sold two bottles containing the Tyson "cure" for drunkenness to a patient, and charged 10 guineas for the medicine. The bottles were seized and analysed by Mr. C. R. Blackett, Government Analyst, who stated that instead of being purely vegetable and harmless they contained a large quantity of strychnine, and that a tablespoonful in one dose would kill an adult. It was also stated that the commercial value of the two bottles of medicine was 2s.

At the Melbourne District Police Court, on 1st May, Ugo Americi, described as a specialist, was informed against for illegally using the title "Dr." before his name without being a legally qualified practitioner. Dr. W. L. Mullen prosecuted. The offence was proved, and the defendant was fined £5. He failed to appear, and a distress warrant was ordered to be issued.

For some time past strained relations have existed between Dr. Hutton, resident surgeon of the Castlemaine Hospital, and the honorary surgeons, and at a meeting of the Committee on 4th May, the former tendered his resignation, which was accepted. Dr. Hutton was allowed three months' notice in conformity with the rules of the institution.

Dr. Thomas Wilson, M.D. Glas. 1836, M.R.C.S. Eng. 1835, an old colonist of 52 years' standing, died at his residence at Princess Street, Kew, near Melbourne, on the 24th May, in his 78th year.

Dr. G. Cooke Adams has commenced practice at Alphington, near Melbourne.

Dr. W. H. Barker, late resident medical officer at the Ararat Hospital for the Insane, has been selected to take charge of the new asylum at Ballarat.

We regret to learn that Sir Anthony Brownless, M.D., Chancellor of the Melbourne University, has been seriously injured by being knocked down by a vehicle at the intersection of Swanston and Flinders Streets, Melbourne.

Dr. W. Crooke has removed from Fitzroy to 32 Collins Street, Melbourne.

Dr. G. R. Eakins has been appointed sole surgeon to the Echuca Hospital at a salary of £72 per annum.

Dr. E. Elphick, late of Broken Hill, has settled at Brim, 202 miles N.W. of Melbourne.

Dr. George Graham, of Richmond, prior to his departure on a holiday trip to Europe, was presented with a eulogistic address by the Victorian Branch B.M.A.

DR. J. DE B. GRIFFITH, of Carlton, and Dr. G. T. Woolley, of Castlemaine, have been appointed returning officers for their respective electoral districts.

DR. E. HARKNESS, late of Tallangatta, has succeeded to Dr. Park's practice at Rosedale.

DR. A. M. HILL, late surgeon at the Melbourne Women's Hospital, has been appointed resident surgeon at the Castlemaine Hospital, in the place of Dr. Hutton, resigned; there were 28 applicants for the position.

DRS. A. S. JOSKE and **P. H. NUTTING** have been appointed official visitors of the Yarra Bend and Kew Lunatic Asylums.

DR. FELIX MEYER, of Carlton, has left for Europe with the intention of attending the Medical Congress to be held in Rome in September next.

DR. ROBERT RAMSEY has commenced practice at 429 Chapel Street, South Yarra, a suburb of Melbourne.

DR. S. H. SECCOMBE, late of Ivanhoe, N.S.W., has settled at Tallangatta, 213 miles N.E. of Melbourne.

WESTERN AUSTRALIA.

DR. A. J. DAVIES, formerly of South Australia, has commenced practice at Bunbury.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

◆

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Vines, Henry Jeckell Kendrick, L. 1869, M. 1877, F. 1878, R.C.P. Edin; L.S.A. Lond. 1869; M.R.C.S. Eng. 1870.

Lapraik, George, M.B. *et* M.S. Glasg. 1887.

Bartlett, Frank Whinfield, L.R.C.P. Lond. 1891; M.R.C.S. Eng. 1891.

Cooper, Henry Westwood, M.D. Baltimore, U.S.A. 1893.

NEW ZEALAND.

Little, Charles Thomas, M.B. *et* B.S. Univ. of N.Z.

Bowe, Francis, M.R.C.S. Eng. *et* L.S.A. Lond. 1879; M.B. Lond. 1880.

McDonagh-Frikart, Eliza Foster, L. *et* L. Mid. K.Q.C.P. Irel. 1879; M.D. Zurich 1877.

Palmer, James Cecil, M.B. *et* Ch. M. Edin. 1890; F.R.C.S. Edin. 1892.

QUEENSLAND.

Sweet, Geoffrey Bruton, M.B. *et* Ch.M. Syd. 1893.

Wellford, Francis, M.B. *et* B.C. Cantab. 1891.

SOUTH AUSTRALIA.

Macfarlane, Archibald Martin, M.B. 1880, Ch.B. 1889 Melb.

TASMANIA.

Scott, John Alexander, M.B. *et* M. Ch. Ed. 1889.

VICTORIA.

Cheyne, Robert. L.S.A. Lond. 1881; L. *et* L. Mid. R.C.P. Edin. 1883.

Elphick, Edward, L.S.A. Lond. 1868; L.R.C.P. Lond. 1869; M.R.C.S. Eng. 1869.

Additional Qualification Registered:—

Long, William John, Ch. B. Melb. 1893.

Name restored to Register:—

Peel, Robert, M.R.C.S. Eng. 1861; L.K.Q.C.P. Irel. 1879.

FIRST-CLASS PRACTICES in good country towns wanted by L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of New South Wales and Queensland on application to L. Bruck, Medical Agent, Sydney.

MEDICAL APPOINTMENTS.

◆

Connor, Samuel, M.D., to be Public Vaccinator for Lara, Vic.

Copland, James, M.D. Aberd., to be a Public Vaccinator for the district of Mataura, N.Z.

Damman, George William, M.B. *et* Ch. B. Melb., to be Health Officer for Walhalla shire, Vic., vice Dr. J. Stewart, resigned.

Hewer, Henry John, M.B. *et* Ch. B. Melb., M.R.C.S.E., to be Government Medical Officer at Blackall, Q., in the place of Dr. A. Gabriel, resigned.

Hood, James Jarvie, M.B. *et* M.S. Glas., Dipl. Publ. Health Glas., to be Govt. Medical Officer and Vaccinator for the Lower Clarence River District, Maclean, N.S.W.

Ick, Thomas Edwin, M.B. Melb., to be Public Vaccinator for shire of Poowong, Vic.

Leitch, James Westwood, M.B. *et* Ch. M. Edin., to be a Public Vaccinator in South Australia.

Lines, David Henry Edward, M.B. *et* Ch. B. Melb., to be Public Vaccinator for Woodend, also Health Officer for Newham shire, Vic.

MacLachlan, Hugh Kennedy, L.R.C.P. Ed., L.F.P.S. Glas., to be a Public Vaccinator for the district of Hamilton, N.Z.

Newland, Edward Oriel, L.R.C.P. Lond., M.R.C.S.E., to be Government Medical Officer and Vaccinator for the district of Coonamble, N.S.W.

Paget, Tom Larkin, M.R.C.S.E., L.R.C.P. Lond., to be a Public Vaccinator for the district of Stratford, N.Z.

Parke, John Steele, L.R.C.P. Lond., to be Public Vaccinator for Rosedale, Vic.

Seccombe, Samuel Hubert, M.R.C.S.E., to be Health Officer for Towong shire, Vic., vice Dr. E. Harkness, resigned.

Somers, James Louis Edgeworth, L.R.C.S. Irel., to be Health Officer for Flinders and Kangerong shire, Vic.

Walker, William John, M.B. *et* Ch.M. Ed., to be a Public Vaccinator in South Australia.

BIRTHS, MARRIAGES, AND DEATHS.

◆

⁂ The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

CAROLAN.—On May 2, the wife of Dr. Carolan, Pukekohe (N.Z.), of a son.

CLUNE.—May 7, at Petersham (Sydney), the wife of Dr. Thos. B. Clune, of a son.

HAMILTON.—On the 18th May, at North Adelaide, the wife of T. K. Hamilton, M.D., of a son.

KELLY.—On the 12th May, the wife of Dr. J. P. Kelly, Balranald, N.S.W., of a son.

NORRIE.—On May 14, at Sydney, the wife of A. Norrie, M.D., C.M., of a daughter.

MARRIAGES.

HAMMOND—LOWENTHAL.—On the 3rd May, at St. Andrew's, South Brisbane, Dr. S. Hammond, of Toowong, to Annie Eva, eldest daughter of Emil Lowenthal, late of Liverpool, England.

MORTON—WRIGHT.—May 16, at St. Mark's, Darling Point, Sydney, William John Morton, M.B., L.R.C.P. Edin., of Inverell, N.S.W., to Harriet Annie, youngest daughter of J. J. Wright, J.P., of Queanbeyan.

STOKES—MAHER.—May 15, at St. Mary's Cathedral, Sydney, Edward S. Stokes, M.B., Ch.M., of Port Macquarie, N.S.W., to Kathleen Maher.

DEATH.

ROSS.—At Newcastle, N.S.W., on the 3rd May, Agnes, only daughter of Dr. Chisholm Ross, aged 7 years and 6 months.

WANTED, second-hand copy of Bentham's "Flora Australiensis." State lowest price and condition of book to R. B., office of this Gazette.

WANTED *The British Medical Journal* for 28th May, 1892, by Dr. W. B. Nisbet, Townsville, Queensland.

WANTED TO PURCHASE the following numbers of *The Australasian Medical Gazette*:—Vol. III., Nos. 1, 2, 3; Vol. IV., Nos. 1, 2; Vol. V., No. 1; and Vol. VI., No. 1. State terms to B.J.N., care of *A.M.G.* Office, Sydney.

WANTED TO PURCHASE the following numbers of *The Australasian Medical Gazette*:—June, 1884; March, 1886; January and April, 1887; December, 1889; September, 1890. P.M.W., care of *A.M.G.* Office, Sydney.

REPORTED MORTALITY FOR THE MONTH OF APRIL, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. Wales.																
Sydney	111,244	244	144	112	...	3	1	...	1	5	16	7	9	5	1	1
Suburbs	275,615	868	317	167	...	8	10	1	10	11	...	...	...	...	...	4
New Zealand.																
Auckland	31,268	59	47	19	...	...	2	1	...	3	4	4	6	2	...	1
Christchurch	16,704	20	19	4	...	...	...	...	...	1	...	2	2	1	...	...
Dunedin	23,302	33	16	4	...	...	...	...	...	1	1	...	1	5	...	...
Wellington	33,786	61	31	7	...	...	...	1	4	1	1	1	1	5	...	...
Queensland.																
Brisbane	56,075	157	87	38	...	...	10	...	1	17	16	5	4	3	...	...
Suburbs	37,582	147	43	28												
South Australia	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Adelaide	38,240	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Tasmania.																
Hobart	35,203	93	55	19	...	...	4	...	2	3	1	4	4	4	...	1
Launceston	22,428	69	33	13	...	...	...	...	2	1	3	2	1	3	...	1
Country Districts	96,837	264	69	...	...	...	3	...	...	4	1	...	...	...	...	2
Victoria.																
Melbourne	71,881	119	74	258	...	1	3	6	21	32	73	45	51	28	...	6
Suburbs	417,304	1,154	558													
Western Australia*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR APRIL, 1893.

Stations.	Thermometer.				Mean Height of Barometer.	Rain.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	72·	62·2	49·5	...	3·79	14	84	...
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	85·2	67·8	49·8	29·946	2·084	11	74	...
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	77·5	54·8	37·5	...	3·93	13	84	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	74·	51·9	38·	...	3·046	15	78	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	73·5	56·6	38·5	29·898	0·32	18	79	...
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	73·5	58·4	37·	29·893	2·52	14	85	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	77·5	58·	40·	29·870	2·07	14	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	...	..	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	73·6	62·	47·4	29·958	5·67	23	82	S.W.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	69·	58·	45·	...	3·914	16	79	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

SMALLPOX IN PERTH (W.A.), WITH SOME OBSERVATIONS ON VACCINATION.

By E. J. A. Haynes, L.R.C.P., M.R.C.S., of Perth, Western Australia.

As it will be fresh in the minds of your readers that we have been visited by an epidemic of smallpox, I wish to put on record some observations noted by me, as they may have the effect of stimulating those who have a voice in the making of laws for the benefit of the public health, to urge on the various Governments the absolute necessity of making vaccination compulsory, as I hope to show that by vaccination alone this city was saved from the ravages of that fell disease, smallpox. I wish to draw attention especially to New South Wales, where there is no compulsory act. All attempts to bring in such an act has been abortive and met with the cry of "interference with the liberty of the subject." Still they do not forget that when you have smallpox or leprosy your liberty is at an end. Could legislators in the other colonies have witnessed the pitiful panic that was rampant here during the recent outbreak, when some six or seven thousand people presented themselves for vaccination, and urgent telegrams and letters from all parts of the colony came demanding lymph and instructions how to vaccinate, I think the way would be made easy for passing a bill for that purpose.

We have been visited this time, it will be somebody else's turn next; especially so as smallpox is very prevalent in England at the present time, and the passage from England now is reduced to nearly three weeks.

It will be observed that I said that by vaccination alone was the disease checked, because, unfortunately, at the present time there is no sewage draining established. Perth is built on sand, and this acts as a sponge, all fluids soaking into it, and the Health authorities were so new to the work of coping with the epidemic that the disease got well on foot before quarantine was properly established. However, fortunately for the city, the houses are well apart and scattered. Had the city been as populous as any of the cities of the eastern colonies, there would have been sad havoc here.

There can be no doubt that the present epidemic had its origin from a Malay named Brine, who was found sick with suspicious symptoms in a boarding-house. He was, unfortunately, sent to the only hospital in the city—the Colonial Hospital—where the disease was allowed to develop and then spread from there as a centre. There appeared to be some doubt with one of the medical authorities as to the case being one of smallpox, but subsequent events confirmed the diagnosis. An unfortunate mistake occurred in allowing the case to remain one hour when even the least suspicion was entertained. Had the case been sent at once into isolation, the disease would have ended with the first case. Of course we would all be wise men if we could look into the future. However, the isolation of this case at the hospital proved, unfortunately, inadequate. The nurse took the disease, and then a person some 300 yards outside the hospital became infected. There appeared to be a lull for a few days, and then the disease showed its hydra-head; but all the cases seemed to be located around the hospital, and for a week the strides of the epidemic increased. Now there appeared utter confusion amongst the authorities. Laymen and military men had a say in the matter, and for a time there appeared a struggle amongst them to know who was who. The consequence was that nearly 14 days elapsed ere the patients were removed from the city. The laity were alive to the importance of the necessity of protecting themselves by vaccination, and every medical man was by day and by night literally beseiged by a panic-stricken multitude; but the unfortunate part was that there was little, if any, vaccine procurable, and a whole week or 10 days had to elapse before the supply of lymph came to hand. Seeing the unhappy state, I telegraphed to Adelaide, Melbourne and Sydney for all available lymph, and, thanks to the Sydney Government, I got a good supply of calf lymph. The other medical men also got a good supply in the meantime, and it was distinctly noticeable that as soon as the thousands of people got vaccinated the advance of the epidemic went under. So many people successfully vaccinated were so many *foci* for the development of the disease destroyed. Knowing that the authorities had not sufficient vaccine, I undertook to vaccinate gratuitously, and for five days I vaccinated about 2,500, and altogether over 3,500, so that I may be allowed to give my experience of the results. I may point out that there were a great many who were unbelievers in the protection offered by vaccination, and there were a considerable number more who doubted whether after all the disease was smallpox, and to the shame of a certain paper be it said, they rather backed up this opinion.

However, we had a plucky paper that did not wish the people to live in a fool's paradise, and with praiseworthy effort urged the people to take advantage of vaccination; and this paper, to its credit be it known, is the *Daily News* of Perth. I further wished to impress upon the people the certainty of the protection, and offered £10 to any case or charitable institution for every case of smallpox occurring in subjects I successfully vaccinated. Be it recorded none occurred. This had the desired effect of silencing the rabid anti-vaccinator.

Recent works on smallpox are very scarce, and the literature on the subject is very meagre, and I have certainly never been able to compare my observations with those of any author, and therefore I take the liberty of stating a few facts observed by me as regards smallpox and vaccination.

Speaking of authors, the most concisely written work on smallpox that I have read is that written by Dr. J. W. Moore, of Dublin (1892), in his book on eruptive fevers; but even he does not mention certain phenomena that I shall allude to. I may *en passant* say that I have had a fair experience of smallpox and vaccination. I was on the "Faraway" smallpox ship, Sydney Quarantine, in 1886, attending cases from the "Preussen" mail boat, and in London during the outbreak of 1883 to 1885 in Commercial-road and Plaistow.

The first case I saw here, that of Mrs. Montague, who subsequently died of confluent smallpox in the house I first saw her, was unvaccinated, and was left too long in town as quarantine was not ready; the consequence was that her case became the centre of a new series of cases: eight or ten sprang up within fifty yards of her. She lived 11 days; her pains were mostly in her arms, forehead, and abdomen, and it was here the rash made its first appearance, rising up in bullæ; and I have noticed that, with the exception of the small of the back, that the rash is most frequently abundant where the pains in the initial symptoms are most severe. So in the case of Adams, Stacey, and Parsons the pain was intense in the face and scalp; here the rash was very abundant. These three cases were unvaccinated, the two former died, Parsons pulling through after a very severe ordeal. In pregnant women I have noticed a peculiar susceptibility to the disease, even in women who have been some time previously vaccinated. Some five or six in this epidemic took the disease, proving fatal in two; the others, I understand, did not abort. The question arises, does the fœtus become first infected and then infect the mother? Mrs. Montague told me that fourteen days before I saw her she was washing for her mother right opposite the Colonial Hospital, and stayed there the whole day. She aborted two days before I saw her. I will refer later on to the effect of vaccination I performed on pregnant women. I am quite convinced that I have seen in this epidemic several cases of *varioloid sine eruptione*, and two other medical gentlemen have also informed me of cases observed by them. The point now comes, should these cases be quarantined? If we can place any reliance on the oft quoted case recorded by Marson of the lady who passed through the several stages without eruption twelve days after meeting a case at Islington, and twelve days later again her sister, who had not been out of the house in which both lived, developed virulent confluent smallpox, of course one would have to be certain that fomites were not an important factor in this case; still, these cases require further observation. Further, I have noticed three well marked abortive cases, one was merely in petechial stage, two others were papular. In all of these cases the temperature remained 104 for a few days; there were pains in the back, in the head and joints, and there was vomiting. Then again I saw one case of varioloid which never had any pains; he told me he had a shiver four days before, and a few days afterwards he thought he was flea-bitten (fleas by the way are often plentiful here). He kept indoors after this, and the rash was becoming vesicular when I saw him. Is the disease infectious in any stage? I myself believe it is only so when in the vesicular stage, and ample evidence supports it here. Take the case of Brine, the first case: he was in a boarding house, no person took it there and no one in the vicinity where he lived. I am aware that authorities state differently, but their theory is open to the objection that fomites may be the medium and not the patient *per se*. I have noticed in cases where mustard poultices and plasters were applied on the side, back, or abdomen that the eruption made its appearance very much in evidence. In several of the cases I noticed the scarletiniform prodromal rash and the smallpox eruption did not appear in these parts, as pointed out by several writers. In two cases the triangular area extending from the umbilicus to the groin was well marked.

The lesson to be taught by the epidemic is that it is impossible to safely nurse cases of smallpox in the city, and that all suspected as well as developed cases should be sent to quarantine well outside the city. Whether the strong winds and stormy weather which prevailed at the time of the isolation of the first case blew the seeds of the infection over the city, or whether the thousands of people who passed the hospital to the Catholic Cathedral, 100 yards away, were the carriers of infection, and whether it would have been better to have roped off the streets, and lastly whether the doctors in attendance at the hospital, or the nurses, or the patients, going to and fro, spread it, is a problem perhaps never to be solved; but the fact remains it did spread by some means, and most likely all the ways above enumerated had a share in it. Now how did the disease come here? Brine came off the s.s. "Saladin." There is a report that a passenger threw himself overboard on the passage down from China after being ill some days; that the captain called a doctor in at one of the ports to see a sick man. The doctor said it was a case of fever. Then the captain said in an interview with a newspaper reporter, "I did not bring smallpox here, in fact I took a case of smallpox away from Fremantle on my return trip, and three days after leaving the Broome this passenger took ill, the case turning out to be smallpox. I was quarantined at the next port I touched in the China seas." It took the steamer 11 days to go to the Broome, add to this three days, and it makes 14 days. The time of incubation of smallpox is about 12 days. However, I am not going to say who brought it here for many reasons, but medical men can form their own opinion. The exact dates were, s.s. "Saladin" left Fremantle 8th March, left the Broome for Singapore on 18th March.

I have read somewhere that epidemics of chickenpox often precede smallpox. Now whether it has any relation or not to the disease, or whether it so disturbs the condition of the population, rendering them more susceptible, I am not going to argue, but I have noticed for some three months previous to this outbreak of smallpox a great many cases of chickenpox. I notice that in the Transvaal in South Africa they have an epidemic of smallpox, and previous to this there was rather a severe epidemic of chickenpox.

It will be noticed that a case of smallpox has recently turned up in Adelaide. The question arises, how did this case get its origin? there was no smallpox at Colombo. Well, I give my opinion that the case is to be traced from the Perth epidemic. Passengers were not allowed to travel from here to the colonies, the ports of Western Australia being declared infected. To get over this difficulty several passengers went from here to Colombo and from Colombo back to the eastern colonies, and it is not too much to advance that the contagion was carried in their luggage and clothes. Now the run from Colombo to Adelaide is about 12 days, and this fits in very nearly with the shipping of infected baggage at that port. I mention this to show how the disease may very likely be carried, and it would, I submit, have been very much better for the medical authorities at each of the eastern colonies to have been guided by the rules of their profession than by the clamour of the laity, and allowed passenger traffic in conditionally that they had recently been successfully vaccinated and their clothes and luggage properly disinfected. To shut out the passenger traffic from this colony as they did was to deal a deadly blow at the commercial prospects of this young colony, and the damage inflicted can be rather imagined than calculated; and it is an axiom, I think admitted all over the world, that recently and successfully vaccinated subjects are not the media by which the infection is spread, but that it is through fomities. I have not sought to question whether the disease had its origin *de novo* from facts above; all can draw whatever conclusion they like.

Regarding vaccination, I think there are certain phenomena which require further observation and working out. Like smallpox occurring in those vaccinated, sometimes there is an attack without an eruption, so in vaccination. I have often vaccinated persons who had all the subjective symptoms, and the vesicle did not appear on the vaccinated arm; and this I have experienced on my own person. Again, I have been informed by patients that were vaccinated on the other arm that they felt great pain in the old scars when the new vesicle was approaching maturation. I have vaccinated women who were well advanced in pregnancy without in any way interfering with the course of pregnancy. In two cases in which I had vaccinated the women were delivered within a fortnight of the time of expectation, and as smallpox was occurring around them, I vaccinated the babies within four days of delivery, but the vaccination did not take. I tried it a week later and failed again. The question arises, did the vaccination on the mother affect the child *in utero*? If so, it may be that those cases related, where the child has been several times attempted to be vaccinated but failed, may be due either to the fact that the parent by a previous vaccination has protected the offspring, or it is due to *vaccinia sine eruptione*. I have in this epidemic vaccinated children under a week old, and one child as soon as it was born, and the results were most satisfactory.

It is held by most authorities that the protection afforded is in relation to the number and characteristic marks of the scars of vaccination. My experience in all the cases I have seen in every epidemic hardly agrees with this, as I have seen cases of smallpox, and even in this epidemic, where there were four and five marks; but I never yet saw a case of smallpox in a patient whose arm showed the scars of vaccination, well-marked diploæ, and the area of which was as large or larger than a shilling, and I hold that the area, whether it be made of many scars or only of one, it is the best test. I have read this somewhere, or it has been taught me: but at all events, whether it is a *lex non scripta*, it is certainly my experience; and here let me answer a question often put. You say if a person is successfully vaccinated he is not *per se* a medium for spreading the infection—what do you mean by successfully, and how do you tell? My answer is, that vaccination is a success when the vesicles show an area, when put together, covering the size of a shilling. Some allowance would have to be made in revaccinations, because in these the vesicles are often not characteristic; but in these cases notice would have to be taken of the old scars present. If, then, passengers from an infected port, as in our case, were vaccinated a week before their departure, there would be absolutely no risk of spreading the disease. I will quote a few real cases which will show the benefit of both vaccination and revaccination, so that the rabid anti-vaccinators may have something to gnaw at. The lad Stacey, aged 18 years, was not vaccinated. He lived in the house with his parents; there were also six other children, all of whom were vaccinated. The unvaccinated one was the only one who took the disease, and he died of confluent smallpox. Adams, Wholohon, Connachers and Mountague were also unvaccinated, and they died. Parsons was unvaccinated, and he had confluent smallpox, and had a very narrow escape.

Of those who were unvaccinated, a man, Davis, a painter, the father of a large family, had his wife and all his children revaccinated, and, strange to say, he alone was attacked. None of the cases, with a few peculiar exceptions, who took the disease were recently vaccinated. There were two or three who were recently vaccinated who took the disease, but it was clearly proved that they were already infected before they were vaccinated; but the vaccination even then had the effect of making the disease abate at an early stage. Mrs. Taylor was such a case; she was suckling, and continued to suckle her baby, which was only recently vaccinated, still the child did not take the disease.

Of the vaccination rashes that followed, the most common were roscœola and urticaria. I saw one case of a vesicular eruption that I am sure was purely a general eruption of vaccinia.

There have been some 60 cases of smallpox. The population of Perth is about 12,000, so that one in every 200 were attacked. There were seven deaths; two were vaccinated (and of these one died in confinement), and the remaining five were unvaccinated. Captain Crook, who died, said he had had smallpox in England and was vaccinated there. During the epidemic there were six cases unvaccinated; of these, five died, and the other escaped very narrowly with his life.

It is very noticeable that just previous to the outbreak of smallpox there were several cases of typhoid; during the epidemic there were scarcely any. This may be due to some influence of the epidemic, but it is most probable that it was due to the fact that there was a house to house inspection and a general cleaning up of premises; and it is very suggestive that when typhoid makes its appearance epidemically that such a resort should always be looked to.

SERIES OF CASES OF DISEASES OF THE NERVOUS SYSTEM.

By Thos. B. Whitton, M.D., &c., Q.U.I., of Reefton, New Zealand.

No. VI.—Lateral Sclerosis.

SYNONYMES SPASTIC PARAPLEGIA OR SPASMODIC TABES.

TWO FORMS—PRIMARY: FROM SYSTEM LESION OF THE CROSSED PYRAMIDAL TRACT; SECONDARY: FROM DESCENDING DEGENERATION FOLLOWING ON CHRONIC TRANSVERSE MYELITIS, &C.

LATERAL SCLEROSIS WITH ATROPHY OF THE MOTOR NERVE CELLS OF THE ANTERIOR CORNUA—AMYOTROPHIC LATERAL SCLEROSIS OF "CHAROOT."

LATERAL SCLEROSIS AND POSTERIOR SCLEROSIS COMBINED—THE ATAXIC PARAPLEGIA OF "GOWERS."

Lateral sclerosis is a very chronic malady, which may remain stationary for 20 years. It is perhaps the least dangerous to life of any chronic spinal disease. It equally affects both sexes, and is most frequent between 20 and 40 years of age. The most frequent cause of it is spinal concussion or a fall on the back, but the sclerosis may not appear until two or three years after; next frequent cause is exposure to wet and cold. It may follow syphilis. In this spinal disease there is a gradual onset of muscular weakness; the deep reflexes are increased, and there is a spasm of a peculiar extensor character of the lower extremities, lessening or disappearing with flexion of the knee joint, all of which occur gradually without any focal lesion.

There is no unsteadiness of gait, as in locomotor ataxy, nor extensive muscular wasting, as in amyotrophic lateral sclerosis or in muscular atrophy. There is also an absence of sensory and trophic disturbances; of any vesical or sexual weakness, and of any cerebral disorder. The muscles in this disease are not flaccid and wasted, but are hard and firm. The legs are often found in an almost permanent contracture, and extended, which muscular tension affects the gait; the patient walks with short and difficult steps, the legs not being at all flexed upon the knee, whilst the feet are scarcely raised from the ground, but are slowly slid forward with a tendency to walk on the toes.

CASE I.

Whilst practising in Otago about 12 years ago this case first came under my notice, and was under observation for about seven years. I have not heard of his death.

J. W., aged 42 years, married, family of four, has been an alluvial gold miner for over 20 years, and worked in cold snow water for some years previous to his present illness. He is a strong, healthy man with no specific history; never had any severe fall; no alcoholic tendencies; family history free from insanity or any nervous disease. At first I thought he had muscular rheumatism, as he complained of pains in the back and dull pains in his legs with feebleness in walking; the arms are unaffected.

In about a year's time he was unable to follow his occupation as a miner, requiring the aid of a stick in progression, as the motor weakness of the legs has greatly increased; but the most annoying trouble was the stiffness of both legs. He was unable to bend them at the knees, and should he sit down he could not get up again without assistance. This arose from muscular spasm. He let his feet partially slide along the ground, as he was unable to lift them. On sitting down, both legs would stick out in front of him, and when his heels rested upon the floor, legs and and feet would shake—ankle clonus. There were also sensations of numbness and tingling in the legs, but the arms were not affected in any way, either sensory or motor.

When examined, the muscles of the legs were not atrophied, but tense and rigid, ofttimes attacked with tremors and twitchings, but responding to the electric current and the deep reflexes greatly exaggerated.

He never had the lightning pains nor the inco-ordination gait of ataxy, as with the help of a stick he could walk a mile or two very slowly, and feeling tired when finished; but the difficulty was in starting off, on account of the extensor spasm of the legs. With the exception of always feeling cold in his legs and a numb feeling, the sensory functions were normal; likewise his mental power. The sphincters were unaffected; there were no trophic nor ocular symptoms, whilst sexual power was unimpaired, as another child was born to him two years from the commencement of the disease.

At this stage he was given nux vomica and liq. hydrarg. perchl., and his wife was instructed how to use the interrupted current to his legs and spine; but it was ceased after a few months' trial, as he found that it increased the spasm of the muscles, which I should have known, but considered that rheumatism was the chief trouble. About this time he became schoolmaster in a small country school, and during the third year of his disease found that he required the aid of two sticks in walking. When he got out of bed the spasms of his legs would be so severe that he had to be assisted to his feet, and the calf muscles rubbed vigourously and the knees flexed before he could walk. Now he could only walk about his garden, as progression was so tedious; but he was able to ride when put on horseback, and having two schools to attend to, two miles apart, his wife would assist him into the saddle and he would jog along with two sticks, dismount, and be helped on his horse again by some of his scholars, and so return homewards. As he thought something could be done for the spastic paralysis, he came to the hospital for six months, when he was put on a course of pot. brom. and belladonna, then arsenic and cannabis indica, varied by rubbing the leg muscles and immersion in hot baths for half an hour; the legs always became more flexible and moveable after the bathing. I think the bromide gave most relief to the spasm, and when he returned to his school he continued the bromide and cod liver oil for another year off and on. He did not get any worse, as the disease became stationary after this, and was under my care altogether for five years; afterwards he was removed to another school, where he had no riding or walking to do. He corresponded with me for two years, and when last heard from was in the same condition, using two sticks for progression; no muscular atrophy; no pain; digestive and other organs perfectly healthy.

CASE II.

R. M. was under treatment in the Reefton Hospital three years ago, aged 55, married, no family; had been a sailor for 25 years in early life; since then an alluvial gold miner; a healthy man, never having had any illness nor sustained any injury; temperate, with no history of specific disease, insanity, or nervous disease in his family.

Present Condition.—He walks slowly and with great exertion with the aid of a stick, dragging his feet after him; the right one he can only lift four or five inches off the floor. He cannot mount a step or get over any obstacle, but on level ground he can walk a short distance, feeling his legs very heavy and tired after so doing. He is unable to do any work; cannot even cut firewood, as he would topple over, and when he sits down the legs become rigid and stick out in front of him, shaking from the ankle clonus; knee-jerk is greatly increased, and the knee can be bent by using a little force, when the spasm disappears, but it returns again on tapping the patella. The muscles of the thighs and legs are hard and firm, not flaccid and no wasting; he complains of loss of power in the flexor muscles of the hip joint, especially on getting up in the morning; should he shut his eyes or gaze at an overhead object he will sway about and fall, but he has no ataxic gait. There are no sensory symptoms, with the exception of pain in the hip joint, not lightning pain, but fatigue pain: never had any back pain; no anæsthesia of the skin; occasional tingling may be felt in the lower extremities. No pain over vetebræ on using hot sponge. The muscles react normally to both forms of electricity; no reaction of degeneration. All the organs are normal; no cerebral nor trophic disturbance; iris reflex present and the sphincters are unaffected.

It is three years since he first felt the motor weakness in the legs gradually becoming worse, until the spastic paraplegia is pronounced. On entering the hospital he was told that his disease was chronic, with little benefit to be derived from electricity or drugs; but as he was anxious to undergo some treatment he was at first put on a course of pot. iod. and belladonna, on the chance of the disease having a specific origin, then for two months on hydrarg. perchl. and chloral, the latter in gr.v doses ter die; finally he was given the following:—

Liq. Arsenic ♏72
Tinct. Cinch. Co. ʒii
Aq. ad ʒvi
Cap. ℥ss. ter die.

In addition, for six weeks he had a daily injection of antipyrin gr.ii; it never caused any abscess or sore. Of course the site of puncture was in rotation over the extremities, but no benefit followed, neither was any benefit derived from the constant current passed through the spinal cord, which treatment was carried out for two months. No strychnine, nor the local electrical treatment of the extensor muscles of the thighs were used, as it only increased the spasm. Some temporary benefit followed rubbing the calf muscles and using hot baths, but though he walked a short distance daily, after the end of six months the motor weakness and spasm were in the same condition. Being under notice for another year, it was still found that the disease had not advanced. After this he left the district, and I have not heard of him since.

These two cases present the first stage of primary lateral sclerosis, in which the patient can walk about but has no muscular atrophy. The next case (No. 3) is one of secondary lateral sclerosis, where degeneration of the lateral columns —crossed pyramidal tract—follows after a previous injury or disease.

D. H., a native of Sweden, aged 24, a sailor who left the sea to try his luck at alluvial gold mining, with a healthy constitution, no specific history, and of temperate habits, was covered up one day while at work by a fall of earth. On being rescued, it was found that he had complete paraplegia of the lower extremities. He had sustained a spinal concussion of the mid dorsal region with intramedullary hæmorrhage, producing later on chronic transverse myelitis.

He presented the following condition when admitted to the hospital: A severe contusion over the sixth, seventh, and eighth dorsal vertebræ, which were painful on pressure; girdle pains around this region; complete motor paralysis and anæsthesia of extremities; total loss of all the reflexes; both sphincters paralysed; passing both fæces and urine in the bed. Temperature never rose above 101°; soon became normal. He remained for about a year in this state, but in possession of a good appetite. The treatment consisted of gr.v doses of pot. iod. ter die, to which ♏ij of liq. strych. was added after an interval of six months; prevention of extensive bedsores, and cleanliness. Sensation slowly returned in the extremities first; he ceased to pass urine under him, using the urinal when necessary; the girdle pains disappeared; he began to lift his heels and legs off the bed, and the superficial reflexes returned. During the second year he was put on small doses of liq. Donovani daily (20 minims), and the strychnine was stopped. He could now sit up on the side of the bed, move his legs freely, and partially stand up when supported; he regained control over his rectum, but required an enema once a week. The deep reflexes returned and became exaggerated; sensation was now normal, and he complained of shooting pains in his thighs and back. When he reached the third year of the disease drugs were ceased, as the rigidity of the lower limbs began: he would sit with both legs extended, resting on the heels, the knee-joints very difficult to bend, but he could walk a little with the aid of crutches, the feet sliding along the ground, and when lifted shaking from clonus, the toes trailing after each step; the back was much bent and his head stooped. He was very proud when he could walk around the garden in this fashion. After this he managed to progress with the aid of two sticks, the body becoming more erect; both sphincters normal. He became fat and healthy and cheerful. From this time he passed from my care, being sent to a benevolent asylum, and from the last account he was able to walk by himself, and the rigidity of the muscles had nearly vanished.

Amyotrophic lateral sclerosis is spastic paraplegia of the lateral columns combined with degenerative atrophy of the nerve cells of the anterior column and the medulla, producing atrophy of the muscles of the extremities and of the face, tongue, lips, &c. Since the cervical portion of the cord is attacked first, it always begins in one arm, which feels weak and tired. In six months or a year it commences to waste, whilst the other arm becomes involved. Then the gait becomes stiff, a tremor of the legs appears, and the person is easily tired on exertion.

The two following cases, the notes of which I preserved, occurred about eight years ago during my practice in Otago. I then considered them as muscular atrophy, not being able to "place" them so well as now. Both cases ended fatally, and it was impossible to obtain a necropsy.

Case IV.

Mrs. W. V., aged 43, mother of nine children, had always been healthy until the present illness; never had any injury or disease; family history free from insanity and nervous disease. She was a hardworking woman, but subject to mental worry, having a husband who illtreated her, frequently beating her and compelling her to remain out all night. She first complained of loss of power and weakness in the left arm, which easily became tired; also of pain in the same shoulder. She found herself in a short time unable to lift anything with the left arm. In five or six months the muscles of the hand—interossei—the biceps, triceps and deltoid commenced to atrophy, the arm hanging flail-like by the side. Then the right arm became weak, and in a few months became like the first one.

Thinking at first it was rheumatism, she was treated with pot. iod. gr.x ter die, and various liniments were tried; but upon the atrophy appearing, the latter were ceased and liq. hydrarg. perchlor. in ♏20 doses given.

During this time she was staying at home, but unable to do any work, sitting moping in a chair; and now when she tried to walk about, the legs began to feel stiff and assume the spastic paretic gait; the reflexes were exaggerated; no sensory symptoms; sphincters normal; digestion good, but mentally she became very dull and apathetic, sitting all day by herself and refusing food.

When she had been in this condition for over a year the husband had her removed to the hospital, where she took to bed, lying with her legs stiff and extended; very difficult to attempt passive motion at the knee; shaking with clonus when lifted; the patellar reflex greatly increased, but sensory powers perfectly normal; no pain, tingling or numbness felt. The mucular atrophy of the upper limbs is steadily increasing, as now she can feed herself with difficulty, nor can she lift her hands, as they have assumed a contraction at the wrist joint. She would not take any medicine, but a daily subcutaneous injection of liq. strych. ♏x. over the deltoid and gluteal muscles was persevered with for three months, but the disease steadily progressed as atrophy of the muscles of the lower extremities appeared, and as it progressed so did the stiffness and extension diminish. Contraction at the knee joint took place; mental confusion and apathy to all surroundings were well marked, though she still responded to the calls of nature. Muscular fibrillary twitchings were frequent, and present in the elbow and shoulder as well as the lips, the tongue and the cheeks.

Towards the third year of the disease—the final stage—bulbar paraplegia came on; speech was very indistinct; swallowing so difficult that it took half-an-hour to get down a little fluid; the lips and tongue atrophied—this is the final picture—body wasted; unable to lift arms, which are almost fleshless; hands flexed on wrist; the heels almost touching the gluteal region from knee contraction, and after death it was found impossible to bend this joint until I excised it. The only reflex now obtainable was in the masseter muscles.

After lingering for three years she was found dead one night—the husband removed her to her home some months previously—from failure of the respiratory muscles.

Case V.

Case V was almost a counter-part of that of Mrs. W. V., and I came across it a short time after her death.

Mrs. Y. O., aged 45, mother of five children, all living and healthy. Previous to her present illness she had been a very strong and active woman, 5ft. 10in. in height; never sustained any accident or injury; no trace of nervous disease or insanity in her family; a suspicion of specific history on the husband's side, who is also a strong, active and healthy man, and who, with his wife, followed the various gold rushes, keeping a pub. and dance-house.

When she first consulted me she had been ailing, as she thought, from rheumatism, for seven or eight months, and had treated herself for such with various liniments and domestic remedies. She suffered from pain and weakness in the left shoulder and arm, unable to use it so freely as the other. Her back was painful and always felt cold. She was also unable to walk much, using a stick, and feeling the extensor muscles of the hip rigid and painful; superficial and deep reflexes increased, with commencing spastic paretic gait. She was put on pot. iod. gr.x and liq. Donovani ♏xv ter die for three months, but as she was not improving she was removed to the hospital, where the injection of liq. strych. ♏vii was commenced. She also had a course of hot baths, and the interrupted current applied over the spine whilst in the bath. Muscular atrophy of the deltoid, biceps and interossei muscles of the left arm and hand commenced, with fibrillary twitching of these muscles, responding to the electrical current. Also the other side failed in power—she could not walk far—but not ataxic; the ankle clonus and exaggerated knee-jerk is appearing. As she was of a very irritable and querulous disposition she left the hospital to seek further advice.

When I again saw her in twelve months' time she had reached the second stage of amyotrophic lateral sclerosis, lying in bed with her feet and legs rigid and extended, and the muscles atrophied; full control of the sphincters; her arms were thin from atrophy, and powerless; contracture of both wrists, requiring aid in feeding her, like a child. Bulbar paralysis set in shortly after this. She would not take any medicine; it was impossible to understand her when speaking, as the lips and tongue atrophied; deglutition was difficult; the masseter reflex was noticed; bedsores became extensive, though she had no pain, and death ended the scene.

A CASE OF ACUTE PERITONITIS, DUE TO PERFORATION OF VERMIFORM APPENDIX—OPERATION—RECOVERY.

By H. Russell Nolan, Honorary Surgeon to the Toowoomba Hospital, Queensland.

◆

On the afternoon of the 10th of March I was called to see Mrs. W., and found her complaining of great abdominal pain; she was vomiting persistently.

For some few days previously she had suffered from pain in the back, but had continued to perform her household duties. During the previous evening, the 9th, the pain in the stomach was first complained of and the vomiting began. The bowels acted twice, and then a dose of castor oil was taken, but after that there was no result, nor had any flatus passed, but the vomiting had increased in frequency and the pain become more intense up to the time of my visit.

She was 30 years of age, and the mother of four children. The previous health good, with no attack like this before, and menstruation had occurred three weeks ago. Hot applications were ordered, and morphia prescribed.

Late that evening I found her in all the throes of acute peritonitis, with quick pulse, rising temperature, dry skin, and thoracic respiration. Her face wore a very anxious expression, with sunken eyes and pinched nose. The vomiting was continuous; no flatus had passed; the abdomen was somewhat distended and rigid, especially over its lower half, and acutely tender. After consultation with Dr. E. Roberts it was decided to operate early next morning.

At 8.30 on the following morning she was seen by Drs. Roberts, Falkiner, Garde, and myself, and it was then suggested to pass a stomach tube up the rectum. This was attempted, but such pain was produced that it was abandoned; a tender bulging mass was felt, high up, to the right of the uterus. Her condition after this became very critical, and for a time she was in a state of collapse.

Operation was delayed for a few hours, and then chloroform was administered by Dr. Falkiner, and with the assistance of Drs. Roberts and Garde, I opened the abdomen in the middle line. Some dark fluid, offensive, but not fæcal in odour, exuded. The presenting intestine was drawn out and examined carefully. It proved to be the jejunum and duodenum, and was examined up to the pylorus. Beyond being intensely injected and adherent in parts, it was normal. This was returned and the ileum extracted. This was of a much darker hue, being purplish in places and the adjacent folds closely adherent to each other, and marked here and there with large plaques of yellow lymph.

The cause of the trouble soon appeared in the shape of an appendix—the seat of inflammation and perforation. Dark, stinking, thick fluid exuded from two perforations about one inch from its distal end. The appendix was detached, ligatured and removed. The uterus and ovaries were normal. The cavity was irrigated with hot water, carefully dried, and a perforated glass drainage tube left in the lower end of the incision, which was united with silk ligatures.

The subsequent history of the case presented nothing worthy of remark, except that there was much flatulence during the first week, and the track of the tube discharged for some weeks.

On slitting up the portion removed, a small fæcal concretion was found at the distal end, about the size of a No. 3 shot grain.

This patient is alive to-day as the result of a prompt operation, my only regret being that, seeing the urgency of the symptoms, even a few hours were lost from trying a useless, and, as it happened, a dangerous expedient.

CASE OF HYSTERO-EPILEPSY.

By C. L. Wolfgang Hunt, M.B. et Ch.M. Syd., Hon. Surgeon to Warwick Hospital, Queensland.

A few rough notes on a case presenting undoubted symptoms of this somewhat rare disorder may perhaps prove of interest.

On March 29 last, about 6 p.m., I was called to attend a strong, healthy-looking girl, 19 years of age, single, chambermaid in a hostelry in the town. The following history was elicited :—She had been in the discharge of her duties for about three weeks, during which period no irregularity of health had been noticed or complained of. Of her previous history nothing was known except that both her parents were dead, and that the girl herself had been in service in Central Queensland. During the early part of the day on which her illness began she had seemed stupid and preoccupied, and complained of pain in her chest, which was ascribed to indigestion. About 5 p.m , while in conversation with other domestics, she had suddenly uttered a peculiar cry and fallen down in the kitchen, and after a few seconds commenced to struggle violently. Her face, at first white and drawn, turned blue. She rolled her eyes, ground her teeth, and frothed at the mouth, and was apparently quite unconscious. Her struggles were so violent that her attendants had great difficulty in keeping her from injuring herself. Cold water to the head, smelling salts, and a few homely remedies were applied, and the struggles soon ceased, and she recovered consciousness slowly, being very confused at first, and then brightening up informed them that she had been subject to "fits" since seven years of age, when she was sent into one by a severe fright; that they had been getting more frequent and violent, and she had to leave several former situations on account of them. She was put to bed and seemed to have quite recovered, but an hour later a repetition of the first fit occurred, more violent than its predecessor and equally sudden in its onset.

I then saw her for the first time. I found the whole body convulsed with violent clonic spasms, apparently bilateral, which had lasted for some minutes, as if she was endeavouring to hurl herself from the bed, to which three strong persons were required to hold her. She appeared quite unconscious, rolling her eyeballs, grinding her teeth, but uttering no sound; frothing slightly at the mouth; pulse full and bounding. The condition of the pupils could not be accurately noticed. Her face was pale and slightly cyanosed; the skin cold and clammy; respiration spasmodic and sibilant. A few inhalations of chloroform quickly put an end to the convulsions, and with a kind of sob she recovered consciousness, but seemed very confused and oblivious of the attack she had just passed through. She complained of thirst, and soon voided a large quantity of limpid urine. No evacuation of urine or fæces had occurred during the fit. Enquiry elicited the fact that catamenia had missed a week previously, and I found marked tenderness over the left ovarian region. I ordered saline aperient clyster, warmth to pelvis and feet, and bromide and chloral mixture and slop diet. No pain or vomiting was complained of, and as she seemed quiet and inclined to sleep I left.

At 9 p.m. I was recalled, as she had another similar attack. I kept a careful watch for any manifestations of hysteria, as the violence and duration of the clonic spasms made them savour strongly of that disorder; but the condition of complete unconsciousness and all the other symptoms pointed more forcibly to epilepsy as their exciting cause. Chloroform, as before, speedily quieted the spasms, and the attack terminated as previously, with a fairly rapid recovery of consciousness. The clyster had acted well, and I gave a hypodermic injection of morphia, gr. $\frac{1}{4}$ c̄ atropin $\frac{1}{100}$ gr., after which the patient slept quietly for some hours.

At 4 a.m., after a short period of restlessness, another seizure occurred, which was of short duration, and was followed by sleep till 8 a.m., when she awoke much refreshed and quite composed, though rather stiff and sore from her previous struggles, of which she had no recollection.

She was kept quiet during the day; ate fairly well; was perfectly calm and collected, and felt so well that she wished to get up. Her bowels had acted well. There was slight appearance of menses; pulse good; tongue clean; no temperature; no pain, and not a single hysterical symptom.

Between 5 and 6 p.m. she became restless and complained of pain in her chest, and soon afterwards had another violent seizure. This time, however, after the clonic spasms ceased all the muscles assumed a condition of marked tonic rigidity, the arms lying close to the body, perfectly stiff, the hand being bent back on the wrist and the fingers partly flexed so as to resemble a bird's claw. The eyelids were half closed, and pupils somewhat contracted and reacting slightly to bright light: respiration very slow and shallow; cutaneous stimulation not responded to; pulse full, 60; face drawn; skin cold and clammy. Patient could not be roused, and remained thus for about 10 minutes, when the general tonicity of muscles gave way to flaccidity, respiration improved, and with a deep sigh consciousness returned. Patient asked for a drink, and if she had been asleep, and how it was the doctor had come without her seeing him. She seemed quite herself and talked sensibly. After persuasion she let her hair be cut and cold compresses applied to the head. She complained of hunger, and partook well of light diet, though manifesting rather morbid cravings.

At 10 p.m. a similar attack recurred, but as the rigidity lasted some 30 minutes her nurse got frightened, and on being recalled I found the patient in the typical crucifixion attitude noted by Charcot as occurring in cases of hystero-epilepsy, the fingers clenched and the thumbs turned in; there was general plastic rigidity; eyes open and staring; respiration scarcely perceptible; pulse slow and full, 48; head thrown back and jaws tightly closed; pupils medium and reacting slightly to bright light. After chafing the limbs for a little while this plastic rigidity gradually gave way, and she recovered as before. She had a tendency to vomit medicine given by the mouth, and as she seemed benefited by the hypodermic injection of morphia and atropin given the previous night, I repeated it, with beneficial results, as she slept quietly till morning, when she seemed well and remained so till evening, when she had a distinct hysterical attack, accompanied by great depression of spirits, restlessness, real or feigned hallucinations of sight, moaning, and talking nonsense; tongue and pulse were good and all functions healthy; the hypodermic injection of morphia and atropin was repeated, followed by good night's rest. Next day patient complained of cough and sore throat, and it was thought she had caught a chill; the sore throat got worse during the day, hoarseness and complete aphonia supervened, and towards evening she seemed almost choking. I came to visit her and found her speechless, and only able to open her mouth about a quarter of an inch, while the tip of her tongue was bent right back on the dorsum, and had apparently been in that position for some time, as the veins were turgid and the tongue itself swollen. Suspecting hysteria, I closed her nares with my fingers, and after a few struggles she opened her mouth fully and the tongue resumed its normal position; hoarseness and aphonia disappeared; she talked naturally and said her throat felt quite well. I had no further trouble with her, and her recovery was rapid and complete, and during it there was not the slightest manifestation of hysteria. Unfortunately I have been unable to get any history of the nature of her previous fits, and as she has now left the district I cannot keep her under observation.

I consider the case an interesting one from the protean nature of the clinical symptoms, which, while taken as a whole, clearly, I think, point to the diagnosis of hystero-epilepsy, indicated epilepsy at the onset and at the end pure hysteria. The periodity of the seizures was also noticeable. The exciting cause, if such existed, was probably some ovaritis due to amenorrhœa. As regards treatment, I found chloroform of the most value in relieving the convulsions, and the hypodermic injection of morphia and atropin in assuring rest and freedom from the attacks.

ANCHYLOSIS OF LOWER JAW.—A SHORT RECORD OF TWO CASES TREATED BY EXCISION OF THE CONDYLE. *

By B. POULTON, M.D., CH.B., MELB., M.R.C.S. ENG., &c., LECTURER ON SURGERY ADELAIDE UNIVERSITY, AND HON. SURGEON ADELAIDE HOSPITAL.

A. L. B., *æt.* 17 years, female, 11 years ago was kicked in the face by a horse, and since then has had very limited movement of the lower jaw; health always good; family history good. The lower jaw is almost immovable. About an inch in front of each angle there is a depression and groove in the bone. The upper teeth project slightly, and the central incisors of the lower jaw are directed inwards. She can only take soft food; has no power of mastication, and pushes her meals between the teeth with her fingers. The incisors can be separated about one-sixteenth of an inch with great difficulty. Under ether, the lower jaw was depressed nearly half-an-inch, the screw dilator seeming rather to bend the bone than move the condyle.

After waiting three weeks, I cut down upon the right condyle, and found firm bony anchylosis, with downgrowth from the base of the zygoma. The neck was divided with the chisel and hammer, and a portion about one-quarter of an inch across removed. The dilator was introduced, and the lower jaw depressed with great difficulty about half-an-inch. The left condyle was evidently anchylosed.

---

* Read at the Intercolonial Medical Congress, Sydney, 1892.

During the following month wedges were inserted, and the incisors separated daily about half-an-inch, the dilatation causing pain in the region of the left condyle. I then cut down on the left side and removed the neck and part of the condyle in fragments.

The patient went home in three weeks with very good movement of the jaw, but a small sinus persisted on the left side. From this I subsequently removed a fragment of loose bone, and had to open a deep-seated abscess above the zygoma.

Case II.

E. F., *æt.* 24. This patient came under notice in February, 1892. She is unable to give a very definite history, but says that after a fever in childhood an abscess appeared close to her left ear, and that she has not been able to open her mouth since. In childhood her right ear often ached and discharged matter. She cannot open her mouth wide enough to insert the tip of the little finger. The lower jaw is fairly well developed. There are deep, old scars over the left masseteric region. The left external auditory meatus is completely closed.

The incisors are wanting, and many other teeth carious. I found it impossible to depress the maxilla, and influenced chiefly by the condition of the left ear and the scars over the left ramus, cut down upon and exposed the left condyle. I divided the neck with forceps and removed the head of the bone. There was no gross disease of the bone or joint, and no bony anchylosis. I had cut down upon the wrong side, having been misled by the external evidences of old suppurative disease in the vicinity. Exposing the neck of the right condyle, bony anchylosis was discovered with excessive formation of new bone. The neck of the condyle was cut through and a large portion removed by the chisel, as in the preceding case, and it was also necessary to remove a portion of the overhanging base of the zygoma.

The mouth could now be opened easily, and all the decayed teeth were removed. There was some delay in the healing of the wound on the right side, a sinus persisting for several weeks.

My friend and colleague, Dr. W. Anstey Giles, kindly examined the left ear, and, reflecting the auricle forwards, found the meatus completely closed by bony outgrowths.

This patient left the hospital with free movement of the maxilla, and is now waiting for a set of artificial teeth. I am indebted to my friend Dr. Goldsmith, of Port Wakefield, for the opportunity of treating these cases.

PROCEEDINGS OF SOCIETIES.

NEWCASTLE MEDICAL SOCIETY.

A meeting of the Newcastle Medical Society was held at Watt-street, Newcastle, on Thursday, 11th May, Dr. Beeston in the chair; also present, Drs. Eames, Nash, Smith, Hester, Treloar, Kane, Cribb and Nickson.

Dr. G. F. Smith opened a discussion on

"INFANTILE ECZEMA AND ALLIED DISORDERS."

Dr. Smith said: At the commencement of a new session our Society has introduced a method, now adopted by many leading medical societies, of treating subjects which may be brought forward from time to time by members, that is, a method which will permit of freer discussion but less formality with regard to papers on subjects or objects of professional interest. In our busy lives we really have very little time for long papers, which require considerable study and reading before committing them to criticism; but most of us can by short papers bring up matters for discussion, which, selected from our daily practice, can hardly fail to be of interest. In this way it will not follow by any means that the opener of a discussion will be regarded as a specialist in the subject chosen, but merely as the one to set the ball rolling. With this promise I wish to bring before your notice a subject which I think is of considerable interest and of great importance—that of eczema and allied affections in children. I think this district is prolific in these disorders, and it is on account of the difficulties in successfully treating many such cases that I venture to ask your attention for a few minutes and your subsequent assistance in elucidation of the subject. Eczema, lichen, redgum, strophulus and impetigo, or ecthyma, are disorders I referred to. With the exception of the lastnamed, I suppose all come under the heading of varieties of eczema, and ecthyma is only removed one place from the relationship. All these skin diseases are a local dermatitis, and the degree of inflammation and the relative position of the patches give rise to the different names. Eczema commences with a local irritation of the skin, followed by the appearance of minute papules of a red colour, which may be scattered or in proximity. The papules may harden, disappear or become chronic with a scaly surface, or pass into the second stage of vesicles, when a small collection of serum forms between the horny and mucous layers of the epidermis. The next stage is when the serum exudes, and with the shed epithelium forms scales of various consistence and colour. When the papules remain scattered over a large surface, and at the same time discrete, the complaint is called lichen or redgum. When the papules form little rings or half-circles it is called lichen circumscripta, and when they collect in large irregular patches, lichen agrius. Eczema may be acute enough and set up febrile disturbances, and in proportion to its acuteness will it be irritable, itchy or burning. It may be situated on any part of the body, but in children is most common when there is excretion or attrition of parts, viz., anus, groins, elbows and arm-pits, folds in neck, behind the ears, &c. Ecthyma is a stage farther than eczema. It generally is discrete, occurs in small, rounded pustules on a raised and inflamed base and on any part of the body, chiefly the more exposed parts. The matter exuding from ecthyma or impetigo is contagious, and so children having only a few patches may very soon be covered by the eruption if neglected. The causes to which these eruptions are due are chiefly excoriations, fæces, urine or saliva, and general neglect and diet, irritation by attrition of parts, or by rough and coarse garments, especially by flannel, also teething, gastro-intestinal troubles and syphilis. Whenever a child is brought with eczema on the body in discrete patches, I think in nine cases out of ten if one looks one will find excoriations about the genitals. This leads one to the all-important question of the cause of the excoriation. Most cases are caused by neglect in removing the wet and soiled napkins, but there are cases where the mother or nurse is particularly clean and careful, and who uses either Fuller's earth or powder regularly in the case, the cause must presumably lie in some pathological condition of the urine or fæces. When one meets with a too-relaxed condition, with fæces of some odour and urine of strong, staining properties, one is able to treat the condition and perhaps cure or modify the eczema. But there are cases where one can discover no appreciable cause: the clothes are frequently changed; the motions and urine are healthy. The question then is, what is the cause? I am inclined to think it lies in some idiosyncrasy of the child or its constitution, and the very slightest irritation even from healthy urine is sufficient to bring to the surface some inherited peculiarity or taint. Eczema is not regarded as a dangerous disease, and I find in one medical authority that death is not even mentioned as a possible result. Lately I have had two, if not three, cases where I have been constrained to certify that death was caused secondarily by eczema. In one of these cases there had been no previous bowel trouble, but there were frightful excoriations about the nates and genitals. Under treatment the eczema began to improve, but at the same time the child became anæmic without losing much flesh, and one fine day quietly died, evidently from exhaustion. In another case there had been previous gastro-enteritis. Here the enteritis improved, but the eczema remained as bad as ever, and after extreme emaciation the child died. In both these cases I feel sure that the eczema kept up a drain on the system, which finally extinguished life. In the treatment of these disorders one aims at curing or modifying causes, when these can be demonstrated, with attention to diet and cleanliness, washing to be performed with the aid of ointment or starch instead of soap. In cases of excoriations, besides the lotions, ointments and powders generally recommended, I have found an ointment of oxide of zinc powder rubbed up with vaseline or salad oil very beneficial, also in more chronic cases oxide of zinc ointment mixed with one-eighth of yellow oxide of mercury ointment; of lotions I have had little experience. For excoriations alone I believe it best to keep the parts separate, and for the genitals to leave off napkins and let the child lie on some rapidly absorbent material which can be easily changed. In impetigo it is necessary to remove the scabs by poultices and then apply some mercurial ointment; when situated on the head the hair should be close cropped or epilated. In all cases there should be plenty of fresh air prescribed, and when enteric trouble does not prevent, it is often useful to give cod liver oil or maltine. In spite of all treatment, however, there are cases which will not get well, and the points raised for discussion are, I think, principally: 1. What is the cause of those cases where there is no discoverable pathological condition except the eczema? 2. What is the experience of those present with regard to lotions and ointments? 3. What is the experience of pads of wood wool, wadding, moss, or any other prepared pad? 4. How does eczema cause death? 5. What is the best artificial diet in those cases where mothers' milk is not obtainable?

Dr. J. B. Nash said that he presumed the discussion was limited to the disease in children under twelve months old. In practice he was accustomed to place the eczematous affection of infants into two classes: 1st. Those which appeared to be true eczema and were characterized by being skin lesions with a serous exudation and no scab formation, or a dark coloured covering which consisted mostly of coagulated blood, this variety recurring chiefly behind the ear and on parts of the face, less frequently on the body and extremities. 2nd. Those more appropriately named impetigo, which have a creamy or greyish brown scab, the result of the impissation of pus formed from the vesicles which form in the skin. Its situation is in the great majority of cases the scalp. Etiology: Both varieties appear to me to be frequently connected with a want of proper care of the skin, whereby it is not sufficiently often freed from material which may act as a local irritant to the areas between the gland ducts and openings of hair follicles, or may block up the canals, and closing back their contents cause a rupture of the layers of the epidermis, and even of the derma, the depth of this tearing being an important factor in the appearance of the skin lesion. Cleanliness I find to be a term which is applied to much varying conditions of the skin in accordance with the views held by the individual. There is, in true eczema, and perhaps sometimes in impetigo, a constitutional (meaning by this a deviation from the typically normal and healthy chemical constitution and composition of tissues) condition which leads to a production of the disease. Treatment: Two principles underlie this, viz., absolute cleanliness and a proper attention to the state of the alimentary canal, both being necessary to be attained before local or general treatment will bear satisfactory fruit. In the majority of the cases where scabs have formed and we are not in possession of a knowledge of the constitutional cause of the affection, it is necessary to remove the scabs with warm applications of oil, &c., and then to use suitable ointments or lotions; but of these I have little experience, as they appear to me to be difficult to manage with satisfaction. Arsenic in varying doses according to requirements of the patient was the great adjuvant in all those cases where an internal remedy was required. There were, however, a few cases which would be difficult to cure, and they may even lead to the death of an infant.

Dr. Nickson said that the common form of dermatitis in infants is usually of mixed type, and can rightly be called by many names. That while some special diathesis in the child, or possibly some alteration in the chemical constituents of the excreta may be a cause, he thought that neglect and want of cleanliness ought to be considered as tending to aggravate the course rather than giving rise to the complaint, as these disorders were quite as prevalent amongst babies well looked after as those neglected. That we must remember that at this period of life there is a comparative want of resistance present in the superficial layers of the skin, so that any local irritation will do the maximum amount of damage. That perfect cleanliness and protection was the main local treatment, ung. ox. zinc with, in acute cases, ʒi. liq. plumbi to ℥i. vaseline, or in more chronic forms a little liq. carbonis detergens was the most successful in his experience. The condition of the digestive and excreting organs should be attended to. He had seen a few cases where death was certainly brought about by these affections. The constant state of irritation kept the infants peevish and restless, always crying, deprived them of sleep, produced various gastro-intestinal troubles, and the end was brought around by exhaustion. That in each instance these infants were weaklings and puny from birth, he doubted if uncomplicated eczema occurring in a healthy child would cause death if ordinary care were taken. That the successful treatment of such cases depended on the mother or nurse more than the doctor, and that the directions given to them must be full, and deal with every minutæ of the toilet.

DR. BEESTON said that in his experience he found the most intractable cases of infantile eczema occurred in those children who were fed by artificial means, and especially so those cases in which the food was unsuited to the child. Breast fed children, when the mother was healthy, were not so often afflicted with this complaint, and if so they were more amenable to treatment. The severe cases of intertrigo which we so frequently meet are caused by the parts being insufficiently dried in the first place, and very often by the use of soda in the water used for washing the child's diapers. As to the cause of death, where no other pathological lesion was present, this was due in his opinion to malassimilation of food, producing infantile atrophy. In every case where death had supervened the child was badly nourished, the hygienic surroundings bad, and one or other of the parents was in delicate health. The best form of treatment he believed to be the regulation of the child's diet, plenty of fresh air, and scrupulous cleanliness, whilst internally cod liver oil and malt extract could be given with a mixture containing arsenic, potassio, tartrate of iron, and small doses of decoction of aloes. Locally the scabs should be removed by poultices and an ointment of liq. carbonis detergens and lanolin applied.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE 107th general meeting was held in the Royal Society's Room, Sydney, on Friday, 3rd Jnne, 1893. Present: Dr. Worrall (President), in the chair, Drs. Sutherland, Wilkinson, Norrie, Crago, Fiaschi, Wm. Chisholm, A. Jarvie Hood, West, Jamieson, Frizell, Kendall, Bennett, Foreman, McSwinney, Money, Traill, Brady, A. Parker, Thomas, Langhorne, Clubbe, Jenkins, Clark, G. A. Marshall, Rorke, Thring, Newmarch, Abbott and Jas. Dick.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced the following new members:—Dr. Grace Robinson, 187 William-street; Dr. Thos. Frizell, Strathfield; Dr. D. Taylor Edmunds, Bathurst.

DR. F. A. BENNET, of 26 College-street, Hyde Park, showed two patients suffering from xanthoma palpebrarum, the one illustrating the plane form, whilst the other exhibited the still rarer condition of xanthoma palpebrarum tuberculatum.

DR. BENNET thereafter read the following:—

NOTES ON XANTHOMA.

BY F. A. BENNETT, M.A., M.D., &c., SYDNEY.

I. *Classification.*—Xanthoma in its classification comes under the neoplasmata, or new growths, and along with molluscum contagiosum, and colloid of the skin has been described under the "degenerative" order.

II. *Definition.*—It is defined as a fibro-fatty neoplasm, forming yellow plates or tubercles in the corium.

III. *History and Nomenclature.*—Rayer was the first to notice this disease, and gave an illustration of it in his atlas. To Addison and Gull, however, belongs the credit of having first fully investigated its nature, and decribed its peculiarities. In "Guy's Hospital Report" of 1851, believing that they were the first to draw attention to the subject, they described the disease under the name of vitiligoidea, considering that from the peculiarities met with in this new malady, Willan would have described it under his vitiligo. Thereafter Erasmus Wilson published several cases under the name of xanthelasma, from the Greek *ξανθός* yellow, and *ἔλασμα* a plate; but since this limits the disease to one of its form, it is evidently too specific; hence Dr. Wm. Frank Smith's subsequent appellation of xanthoma is more appropriate because more generic. Virchow's designation of fibroma lipimatodes, based upon its anatomical condition, is not regarded as a happy one. It was not until the year 1868, on the republishing of Addison and Gull's report, along with a few additional cases, that general attention was directed to the subject. Since then many have written on this affection, more especially Pavy, Fagge, Smith, Murchison, Hebra, Kaposi, Virchow, &c.; and recently a flood of clinical light has been thrown upon this rather obscure disease by Jonathan Hutchinson.

Form.—Xanthoma may occur under two forms —(1) xanthoma planum, in plates, or (2) xanthema tuberculatum or tuberosum, in tubercles or small tumours, often distinct, but more frequently combined.

Kinds.—Three kinds of the disease are now described:—

1. *Xanthoma Palpebrarum*, where the disease limits itself to the eyelids.
2. *Xanthoma Multiplex* or multiple xanthoma, where it has a wider distribution, and might be found not only on the skin, but on the mucous and serous membranes, as well as on the tendons, &c.
3. *Xanthoma Diabeticorum* or xanthoma occurring with diabetes, an excessively rare disease, and one whose descriptive position here is open to doubt.

Of these three classes, xanthoma palpebrarum, of which we have two typical examples here before us to-night, and to which we will chiefly confine our attention, is undoubtedly the most common. It is generally found in the form of *plates*, although it may appear in *tubercles.* It usually begins on the internal canthus of the upper left eyelid as a small, well-defined patch, and grows either by irregular peripheral additions, or by the coalescence of adjoining patches, and may in time involve a great part of both eyelids. When fully developed these lesions are generally found to be irregular in outline with a tendency to be elongated, slightly or not at all raised above the level of the skin. They are embedded in the corium, smooth and soft, and when pinched up give no evidence of change in consistence or firmness. They are usually of chamois leather colour, but may vary from yellowish white to deep orange. They are rendered more perceptible by putting the skin upon the stretch. They seldom give rise to any subjective symptoms. After a time the disease becomes almost invariably symmetrical.

Development and Termination.—The lesions continue to grow for a time—months it may be or years—but by-and-bye all growth is arrested, and no farther development or change in any form seems to occur. Involution seldom or never occurs; indeed Hutchinson is of the belief that involution would alter diagnosis.

Etiology.—The etiology of xanthoma palpebrarum is very interesting. It is a disease of adult or middle life, 40 years being about the average; but it has occurred in children. It is much more common amongst women than men, two-thirds of the cases being women. It is often hereditary, and Fagge mentions an instance of its having run through four successive generations. It may observe the law of atavism. It has been found associated with several diseases; but above all it seems to bear an intimate, though inexplicable, relation to migraine. Out of 36 cases, Hutchinson found 21 suffering from sick headache: 15 very severely; six less so. In addition to cephalalgia, many presented in different forms that peculiar class of symptoms so characteristic of migraine and indicative of functional derangement of the nervous system, viz., temporary loss of vision or of some of the other senses; numbness of the hands and feet, going on, it might be, to paralysis; whilst others exhibited phenomena of a psychological nature, mental confusion and incoherence, going on in some cases to insanity.

Jaundice, too, is often found associated with xanthoma palpebrarum, one-sixth of Hutchinson's cases suffering from it; but it is in the multiple form that jaundice plays such an important part, four-fifths of the cases being affected with this complaint. It would appear, therefore, from this, that multiplicity of lesions would indicate greater liability to hepatic disturbance and constitutional symptoms. Gout, rheumatism, syphilis, and diabetes insipidus have all been found in connection with this form of xanthoma, but their association has been too infrequent to establish any causal relationship.

There is one point which we must not overlook in this affection, and that is the peculiar predilection which it seems to have for dark-complexioned people, and more especially for such as are liable to those peculiar occasional exaggerations of pigmentation around the orbits which we so often find associated with hepatic and uterine derangement. Hutchinson is undoubtedly of the belief that xanthoma of the eyelids stands in some strong relation to the temporary attacks of dusky pigmentation of those parts, and explains by saying that this disease is probably after all only a senile change in cell structures which have been in former times very often the seat of temporary deviation from normal nutrition.

Anatomy.—The epidermis appears normal, except that in the deeper layers of the rete there is an abundant deposition of yellowish brown pigment. Throughout the corium, more especially in the middle and lower portions, although Jamieson found the chief change in the upper part, there is increase of connective tissue, in the meshes of which lie large epitheliod, fattily degenerated or infiltrated cells, oval or roundish in form and multinucleated, arranged irregularly throughout the corium, or sometimes in nests around the bloodvessels.

Yellowish brown granules and oil globules may be seen within the cells, and also within the fibres of the connective tissue, as well as scattered free throughout the corium; and this it is which seems to give colour to the lesions. The fatty change which here takes place is regarded by some as a true fatty degeneration of the tissue elements, whilst others, more especially Waldeyer and Virchow, are of the belief that it is simply an infiltration, and that of a harmless character, for "the formed elements thus infiltrated remain organically unchanged, and therefore continue to live and are functionally active." Crystals of cholesterin have also been found lying free within the corium.

Diagnosis.—The only disease likely to be mistaken for this is milium, which often occurs in the neighbourhood of the eyelids; but these little sebaceous tumours are hard and tense, whitish in colour, and by an incision over them can be readily shelled out.

Treatment.—The only treatment is excision, but great care is required, otherwise ectropion or epiphora might result.

Dr. McSwinney exhibited a patient suffering from chorea, during which a peculiar form of dyspnœa occurred.

Dr. Crago said that when the case was last exhibited, Dr. Scot Skirving suggested that possibly it might be a habit spasm. He (Dr. Crago) would like to know if Dr. McSwinney had had an opportunity of watching the case sufficiently to give an opinion in the matter?

DR. BRADY said he would like to know if there had been any laryngeal examination, or if there had been stridor?

DR. ANGEL MONEY said he had not had the pleasure of seeing the case when first presented to the Branch, but he remembered a somewhat similar case while practising in London. The child was suffering from chorea, and also had a form of dyspnœa. In this case the trunk muscles were most involved.

DR. MCSWINNEY, in reply, said that with regard to the suggestion of habit spasm he had intended to have placed the boy under chloroform to see what the respiration was like under it, but the boy moved from the district, and he (Dr. McSwinney) had therefore not been able to carry out his intention. With regard to Dr. Brady's question as to a laryngeal examination, there had not been any.

DR. SYDNEY JAMIESON read the following notes of a

CASE OF PACHYMENINGITIS HÆMORRHAGICA INTERNA, TOGETHER WITH HÆMORRHAGE INTO THE LEFT INTERNAL CAPSULE AND ISLAND OF REIL.

By DR. SYDNEY JAMIESON.

THE case I wish to lay before you to-night is one of great interest, for two reasons:—(1) On account of the rarity and complexity of the pathological changes presented; (2) by reason of the difficulty of accurately diagnosing the condition during life. The following are briefly the chief points of interest clinically:—

Elizabeth Clausan, *æt.* 47 years, was admitted to hospital on the 20th February, 1893. Unfortunately the particulars ascertained as to her condition antecedent to her admission were of a very meagre description, but the following points of interest were obtained from her husband. About a week ago her husband, on his return home one night, found his wife lying on the floor. She stated that she had felt queer and fallen downstairs. She could at that time speak quite rationally and with precision. During the next few days she became gradually worse, lost the power of speech and became paralysed. These were the only particulars that one could ascertain, with the exception that for many years past the patient had been in the habit of drinking alcohol to great excess.

Condition on Admission.—Patient is very thin and emaciated; has a dull, heavy expression. When spoken to she seems to understand what is said, but is unable to make any reply in return; left cheek puffed out during expiration; has a well-marked, almost complete arcus senilis. She has a slight cough; can protrude the tongue, which is dry, red and indented at the edges by the teeth. The tongue is protruded in the middle line. No signs of either icterus or anasarca; a few small petechial spots on abdomen and flanks; pupils equal and react to light; skin dry and hot; temperature in axilla, 99·5.

Nervous System.—Sensation to pain somewhat blunted over both lower extremities; elsewhere it seems to be fairly accurate. The common sensibility, temperature and muscular senses were unascertainable, owing to the patient's altered mental state; plantar reflexes somewhat exaggerated, especially the right; abdominal and epigastric reflexes absent; knee-jerks present on both sides, but somewhat exaggerated on the right side; no ankle clonus. Patient has no control over either bladder or rectum; the other organic reflexes are unaltered. Patient is unable to move the right arm and legs. There is well-marked rigidity of the left arm, which is strongly flexed at the elbow and wrist. The thumb and fingers are tightly flexed on the palm of the left hand, and are almost immovable. The right arm is slightly rigid at the elbow joint, but at all other joints the movements are quite free and easy. The left leg is kept constantly flexed at the knee joint, and on attempting to straighten it the patient seems to suffer great pain. The right leg is kept straight, but can be bent freely, and apparently without producing any discomfort. The muscles of the right arm and leg are flaccid, while those of the left are tonically contracted. There are no well-marked trophic or vasomotor changes present. The electrical reactions were not ascertained. Patient has completely lost the power of speech, but appears to understand when spoken to. Hearing is in no way impaired. Pupils react readily to light, and are equal and moderately contracted. Their reaction to accommodation, the field of vision, and colour sense could not be ascertained. There was no ocular paralyses; smell and taste senses unascertained. The pulse was somewhat easily compressed, and the vessel walls were thickened and tortuous. Nothing abnormal about the heart was discovered. A few moist sounds were heard over the bases of both lungs posteriorly. A slight trace of albumen was found in the urine, but no tube casts. No sugar was present.

Course of the case was as follows:—The temperature, which on admission was 99·5, rose that day to 102. On the next day it reached 104, and immediately before her death, which took place on the third day after admission, it ran up to 107. On the day after admission she became comatose, the coma gradually deepened, and she died on the 22nd February—three days after admission to the hospital. My diagnosis was extensive hæmorrhage into the region of the left internal capsule and island of Reil. I made a *post-mortem* examination of the body about 12 hours after death, and the conditions presented were as follows :—

Post-mortem.—Body spare; rigor mortis present throughout body; lividity well marked; pupils equal and moderately contracted.

Head.—Calvarium very dense. On its removal the dura mater was seen to be tightly stretched and to be bulging considerably on both sides over the antero-lateral aspect of the brain. On reflecting the dura in the usual manner a large cystic swelling was found lying immediately beneath the dura and somewhat intimately attached to it. This cyst occupied the subdural space extending from before, backwards on either side for a distance of six inches on the right and six and a half inches on the left. Its vertical measurement, which was fairly uniform throughout, varied from two inches to two and a half inches. Although adherent to the under surface of the dura, and only with difficulty separated from it, the swelling was non-adherent to the pia-arachnoid, but simply rested upon it. The fluid contents of this cyst were of a reddish brown colour, and in amount measured 15 ounces. This fluid was alkaline in reaction, and on standing for some time a deposit of a reddish brown colour was formed, the supernatant fluid being of a straw colour and resembling in appearance ordinary blood serum.

Microscopically the fluid was found to consist of red blood corpuscles, hæmatoidin crystals, and broken down red cells; or in other words it was a mixture of recent and altered blood. Over the remaining surface of the brain the pia was found to be thickened and milky in appearance, and the Sulci between the convolutions were widened out and full of turbid, yellowish-white serum.

The vessels at the base of the brain were found to be the seat of considerable atheromatous change. The brain was then hardened, and on section it was found that an extensive hæmorrhage had taken place from one of the branches of the left lenticulo striate artery and had ploughed up the substance of the brain in the region of the island of Reil; lenticular nucleus and internal capsule on the left side.

Heart.—Arterial valves were competent; mitral valve had some atheromatous deposit in its anterior flap. There was early atheroma at the root of the aorta, otherwise the heart showed nothing abnormal. The splenic capsule was thickened over its antero-external surface, and was adherent to the under surface of diaphragm.

The right kidney was absent, and the left, which weighed six and a half ounces, had a double ureter, the two divisions of which united opposite the left sacro-iliac synchondrosis.

Remarks.—There are two distinct views held by pathologists with reference to the source of the hæmorrhage and the formation of the limiting membrane. One view is that the process is inflammatory, the other that it is purely hæmorrhagic. In an article in "Brain," in the last quarter of 1892, by Dr. Wiglesworth, on this subject, a number of weighty arguments are adduced in favour of the view that the process is of hæmorrhagic origin. In text books on pathology the view that the process is inflammatory in origin is for the most part maintained.

Briefly stated, the process is as follows: First the formation of an inflammatory film on the inner surface of the dura, then follows the process of organization of this film and the formation of similar films super-imposed on one another, and lastly hæmorrhage into this from the newly found vessels. This then is a short description of the inflammatory theory.

Against this Wiglesworth argues as follows :—

1. Were the membrane the primary factor and the hæmorrhage secondary, then we might get the membrane without the blood, but we could not get the blood without the membrane.

As a matter of fact, however, cases are frequently met with in which effusions of blood are found in the subdural space without the trace of a membrane on the inner surface of the dura.

2. Were the membrane the result of primary inflammatory exudation from the vessels of the dura, we should surely find evidence of inflammatory change in the dura itself. As a matter of fact, though such changes are for the most part conspicuous by their absence, this at least is true in all quite recent cases. In such cases the membrane is but loosely attached to the inner surface of the dura, and on its removal the endothelial surface of the dura is found smooth and shining. In old cases, on the other hand, as the new membrane tends to become organized, vascular adhesions form between it and the dura; and on the separation of these the inner surface may be found a little roughened, and the dura itself may be a little thickened. These changes, then, are the secondary result of the irritation set up by the effused blood in exactly the same manner as organization is set up in a thrombosed vessel after ligation.

3. The structure of the newly formed membrane itself is in harmony with the supposition of its hæmorrhagic origin, for if recent it consists of a meshwork of fibrin, in which are entangled both red and white blood corpuscles. In older cases, where capillary vessels have been formed, bands of imperfectly formed fibrous tissue may be seen running parallel with one another, containing in their meshes red blood corpuscles or

the remains of these in the form of little collections of hæmatoidin granules.

4. The fact that the disease is most frequently one of advancing life, with its concomitant arterial degeneration and tendency to hæmorrhage. Out of 54 cases examined by Wiglesworth the average age was 51·6 years.

5. The fact that the disease is not always bilateral.

6. The rarity with which the disease occurs in the cerebellar fossa, the mechanical obstacle which the tentorium must present to the gravitation of blood into this region, supplying a ready explanation of its exemption.

7. The disease is most frequently met with in connection with the insane and those who are the subjects of chronic alcoholism. It is associated in the vast majority of insane cases with brain degeneration and atrophy.

8. In the majority of cases the condition does not betray itself by symptoms during life. This appears to be an argument in favour of the compensatory character of this affection, the inference being that in the majority of cases the effused blood does little or no more than fill up the space left by the wasting brain.

Arguing from these points it seems reasonable to suppose that the loss of support experienced by the meningeal vessels in the degenerating and wasting brain, assisted by localized or general congestions of the meninges, is the main factor in the production of this disease.

DR. WILKINSON said: It is scarcely correct to say that the condition of pachymeningitis hæmorrhagica interna is very rare. In Germany, where very careful and minute *post-mortem* examinations are made and recorded, the condition is by no means rare, though it may be rare to see such a marked example as we have had presented to us to-night. He (Dr. Wilkinson) had seen three cases of this condition. In one the man, a drunkard, died in convulsions; in another, also a case of alcoholism, an old man fell down and broke the neck of the femur. There was also pronounced arterio-sclerosis and excentric hypertrophy of left ventricle. The condition was first studied by Virchow and his school; and according to Virchow, the primary condition is chronic inflammation, leading to the formation of a delicate membrane. In this membrane small hæmorrhages occur, and sometimes large hæmorrhages, that separate the layers of membrane to form a sac. Most German pathologists, including V. Recklinghausen, agree with this view, while the French pathologists hold that the hæmorrhage is the primary condition around which the membrane forms. Virchow's view seems to accord more with the facts observed. Thus the membrane may be well marked, and the hæmorrhage of small extent and amount. Again the symptoms do not as a rule indicate sudden compression from the escape of much blood. It is, of course, quite impossible to diagnose the condition. In such a case as the one before us the amount of blood present must have caused sudden symptoms if the hæmorrhage had been primary. Yet the severe symptoms present were really due to a lesion into the internal capsule. The hæmorrhage could scarcely have been of quite recent origin, inasmuch as the well-formed membrane enclosing the blood was of organized tissue. I may add that, as the President can tell us, recto-uterine hæmatocele may have a primary origin in chronic perimetritic formation. According to Schrœder and Hoffmeister, a chronic inflammatory membrane may form in Douglas' pouch, and hæmorrhages occurring in this membrane may cause one form of hæmatocele. Of course, needless to say, the most common cause of such hæmatocele is rupture of a tubal gestation. Lastly, the most common causal element is alcoholism. This was present in all the cases he had seen.

DR. FIASCHI asked if there was any cerebral compression of the dura mater to enable Dr. Jamieson to diagnose.

DR. JAMIESON said there was simply deep coma. There was some adhesion in this case. He was in favour of the view that the origin was not inflammatory.

DR. KENDALL then read the following paper on

RICKETS.

By THEODORE MAILLER KENDALL, B.A. SYD., MEDICAL ADVISER TO THE BOARD OF WATER SUPPLY AND SEWERAGE; LATE ASSISTANT SURGEON ST. VINCENT'S HOSPITAL.

◆

IT was generally supposed that rickets is a truly English disease, little known upon the continent of Europe, and altogether unknown in the Australian colonies. The disease, however, has since been met with frequently in the various European cities, and its existence in our colonies has been referred to by Dr. Philip Muskett. As it is, however, supposed to be rare among us, I thought a useful discussion might be initiated, both as to the existence and the prevention of a disease which Jenner describes as the most important and most fatal of diseases occurring among children.

I have seen several cases of children suffering from a general tenderness all over the body, for which it was difficult to assign any particular cause; but the progress of the disease, swelling of the wrist and ankle joints—not the joints themselves, but the ends of the long bones—persistent kicking off the bedclothes, and profuse sweating of the scalp, has led me to believe that I was dealing with cases of rickets, more especially as these children were the subjects of gastric troubles and emaciation. One case very typical has come under my notice, the notes of which I will now read to you.

Devey Leslie S. was born in November, 1891, and died in November, 1892. His father, a stout, florid man, says that he cannot trace the child's illness to any family taint, and that the mother, a spare woman, has always enjoyed the best of health, and belongs to a very healthy family. The one other boy is a fine healthy child. The child Devey was, when born, a well-nourished, healthy-looking baby, and continued to thrive till he was four months old, when the supply of mother's milk failed. After this he began to lose flesh and to be subject to gastric disturbance. When the child was seven months old he was brought to me with the following history:—

While his father was playing with the child he noticed that on attempting to pick the baby up he cried very much, and appeared to be in great pain, more especially when the left hip was handled. When I saw him the left hip joint and the left side of the pelvis were very tender to the touch, but there was not any evidence of swelling. The bowels were very constipated, and the stools were hard, white and sour. He was being fed upon Allen and Handbury's malted food. I ordered small and frequent doses of castor oil, hot bandages for the painful joint, and that Mellin's or Benger's food should be substituted for the food in use. He was next seen by Dr. Scot Skirving, who suggested treatment for the ever-present constipation, and that the diet should be made more suitable for the child.

When he was eight months old the child was again brought to me. At this time the whole body exhibited great tenderness. There was no desire to move out of the recumbent or semi-recumbent position (for the child lay half upon his side), and he persistently kicked off the bedclothes. The wrist-joints were slightly swollen, and there was a slight evidence of a rachitic rosary. The anterior fontanelle was very patent, and the head was continually bathed in sweat. The abdomen was swollen and the bowels constipated. The urine was high-coloured, with a sandy sediment, but no albumen was present. The diet was now changed to raw meat juice, white wine whey and Benger's food. Small doses of pernitrate of iron and codliver oil were given. The child did not improve, and Dr. Scot Skirving saw him again in consultation with me. Specific disease was suggested by Dr. Scot Skirving, but we were both of opinion that symptoms pointed more exactly to rachitis. When he was between nine and ten months old both legs became swollen, but the left leg soon returned to its normal size, while the swelling of the right leg continued to increase. The right leg became so swollen and œdematous that I tapped it, drawing off a large quantity of fluid, but not bringing about any material reduction of the size of the limb. No other part of the body was swollen at this time, nor was there any albumen present in the urine, which passed in very scanty quantities.

On looking over the literature of the subject, I find that this swelling of the limb has been recorded by Dr. Barlow, Thomas Smith, and Herbert Paige, all of whom are of opinion that the swelling is due to hæmorrhage beneath the periosteum. Mr. Paige proved this in one case by cutting down upon the bone of the affected limb. The child now began to sink very fast, and after lingering for two months longer he contracted a bronchitis, to which he succumbed at the age of one year.

Judging from the history of the foregoing case it is apparent that anything which interferes with the proper nutrition of a child may be the cause of rickets. Various causes have been assigned to this disease, and it has been said to be closely related to scurvy and syphilis. It is supposed to be due to overcrowding, which brings in its train bad air and bad hygiene. Be this as it may, it is still true that rickets is found among the children of the well-to-do as well as among the poor, and the cases which have come under my notice have all occurred among children of people comfortably placed. Improper nutrition is, I think, the prime cause of rickets, and the diet which seems to promote this disease is the one which is deficient in animal fat and lacks earthy phosphates.

In very few cases indeed is any attempt made to regulate the diet of an infant who is deprived of his natural nutriment, so that it will contain all the constituents of the mother's milk. The child is rather crowded with good food which it is totally unable to digest, and consequently the food acts as a poison. Starchy foods are to be avoided, and I am certain that the practice of feeding children wholly upon condensed milk is very reprehensible, for the sugar contained must be very productive of gastric troubles. Some children appear to thrive upon this compound, but they exhibit no strength when attacked by disease. Mr. Edmund Owen, of the Children's Hospital, London, denounces the use of condensed milk as a food, and I am glad to be supported by so eminent an authority. There is no more suitable food for infants, when the mother's milk fails, than properly diluted fresh cows' milk, given in the old fashioned but cleanly boat-shaped bottle; the addition of some digestive substance, such as pancreatin, may be useful to aid the assimilation of the food, but it is not strictly necessary. Mixed milk, such as is obtained from the various dairy companies, is not in any way desirable. Rickets is, therefore, I think, chiefly due to errors of nutrition, and Dr. Cheadle aptly defines it as a diet disease, accentuated by evil external hygienic conditions and modified by the concurrent existence of scurvy and syphilis.

Can we prevent its existence ?

Dr. Eustace Smith says that rickets is the most preventible of all the diseases of children, and he recommends proper food, pure air, sunlight, and proper clothing. All these remedies are simple and very effectual, but the task of prevention is difficult, more especially as it depends upon a willingness of people to be educated in the subject of the hygiene of children. Much, however, may be gained by patience, and some good might result from the adoption of the practice followed in many continental cities and in some parts of England, viz.: Every one who registers the birth of a child is presented with a pamphlet setting forth the proper method of rearing infants. The prevention of this disease is important when we consider its sequelæ. 1. Epilepsy. 2. Chorea. 3. Mental backwardness. 4. Headaches in children. 5. Somnambulism, and other neuroses and deformities.

Dr. Crago said that in these cases he had found usually not constipation as mentioned by Dr. Kendall.

Dr. Thring said that at Lewisham Hospital there are several cases of this description, but had not seen any cases in private practice; have had, of course, to correct certain deformities by surgical interference.

Dr. Wm. Chisholm said that we have rickets in the colonies. With regard to Dr. Kendall's remarks about condensed milk, he did not agree with him, as in his (Dr. Chisholm's) experience he had known of cases where condensed milk had been used with advantage. Some of the theories expounded do not agree with practice.

Dr. Jenkins said in the medical wards of the Children's Hospital cases of acute rickets are unknown. Mild forms of rachitic nature, due to improper feeding, are seen, but are not of the same severity as those so commonly observed in London hospitals.

Dr. Worrall said his experience was very much the same as Dr. Jenkins'. No doubt rickets was a rare condition here; the ricketty form of triangular pelvis was very rare here. With regard to the question of food, it was interesting to note the great fatigue which men in eastern countries could endure on small quantities of rice and other foods of a similiar character, but yet they have not the same stamina as the beefeaters of western countries.

Dr. Kendall thanked the members for the discussion; he had brought up the matter to find out if the condition were at all common out here.

Exhibit.

Dr. Jenkins exhibited a specimen showing a brain with two tumours symmetrically situated.

The patient, T. M., aged 50, was admitted into the Sydney Hospital on February 21, 1893, complaining of general weakness, and stated he was mainly suffering from a cough accompanied with blood-stained expectoration and rapid loss of flesh. He had no cerebral symptoms, no headache, no vomiting, loss of sight, or paralysis. On examination there was found dulness on percussion at the apex of the right lung, in front, extending to the upper border of the third rib. Over this area the breath sounds were inaudible, and there were no adventitious sounds.

On February 27 complained of dull pain on the right side of head, and of loss of power on the left side; the arm and leg could be moved, but patient was unable to stand. There was also distinct hemianæsthesia. The superficial reflexes were also diminished on the left side.

March 4.—Has now complete left hemiplegia and hemianæsthesia.

March 31.—Patient died comatose.

From the nature of the consolidation at the apex of the right lung, the absence of breath sounds and tubercle baccili, the age and appearance of the patient, malignant disease of the lung was diagnosed, with probably a secondary growth in the right cerebral hemisphere.

A *post-mortem* was held, and the following are Dr. Jamieson's notes :—

"The apex of right lung is infiltrated with malignant nodules of sizes varying from a pin's head to a hazel nut; the larger of these showed marked central softening. A considerable amount of fibrous tissue intersected the mass in various directions. Some malignant nodules were found in the liver and right kidney.

In the brain.—The sulci on both sides in occipital region were found partially obliterated. A large cystic new growth, the size of a billiard ball, was found on the left side, in a position posterior to, and at a higher level than, the motor track. On the right side a solid new growth with slight central softening, and extensive secondary softening around it, was found in exactly the same position. The secondary inflammatory softening had extended downwards and forwards and involved the posterior part of the right internal capsule.

Remarks.—The specimen showed clearly how new growths of large size may exist in the brain for years without giving rise to any serious symptoms. The position of the two remarkably symmetrical tumours, behind the motor tract, explained the absence of paralysis at first. The hemiplegia afterwards was undoubtedly due to softening, involving the posterior limb of the right internal capsule. The primary seat of infection was evidently the right lung.

QUEENSLAND MEDICAL ASSOCIATION.

◆

The monthly general meeting was held in Brisbane on Thursday, 8th June, when there were present, Dr. Taylor (President, in the chair), Drs. Marks, Lyons, Jackson, O'Doherty, Hirschfeld, Thos. Bancroft, Brockway, and P. Bancroft.

On the motion of Dr. Jackson, F. H. Vivian Voss, Esq., F.R.C.S., Eng., was unanimously elected a member of the Association.

Dr. Taylor exhibited a patient who had two months previously sustained a fracture through the external condyle of the humerus. The external condyle and capitellum remained in their relation with the head of the radius, while the trochlear portion of the humerus came forward over the coronoid process of the ulna; the result was an almost perfect joint.

Dr. Jackson showed a patient with a remarkable erythema of the anterior surface of the forearm; she had run two needles into the ulnar border of the forearm. Six weeks after she had an attack of erythema, since which she has had repeated attacks, and at different intervals had had four pieces of needle removed. The skin of the forearm was uniformly red and thickened; some tenderness and increased local heat; no constitutional disturbance. The pain interfered with her work as seamstress.

Dr. Taylor read notes of a case of Morphia Poisoning successfully treated with hypodermic injections of atropine. A discussion ensued upon the treatment of morphia habitues, in which Drs. Jackson, Marks, Brockway and Taylor took part.

NOTES OF A CASE OF MORPHIA POISONING SUCCESSFULLY TREATED BY ATROPINE.

BY THE HON. W. F. TAYLOR, M.D., M.L.C.

ON the 20th May last at 10 p.m. I was sent for to see a man who was supposed to be dying. On arrival at the house I was at once shown into a bedroom, and saw Mr. M., a gentleman whom I knew to be in the habit of using injections of morphia rather freely, lying on a bed. He was quite insensible; the pupils were contracted to the size of pin points; respiration was very stertorous, varying from four to six in the minute; face and neck dusky, swollen; pulse imperceptible; heart beats, 60 per minute.

The tongue was pulled forward by means of a spring artery forceps, and a hypodermic injection of $\frac{1}{50}$th of a grain of sulphate of atropine at once administered. Some dilatation of the pupils soon became manifest; the respiration increased from six to eight per minute; the pulse became perceptible at the wrist, and the heart's action was accelerated. In a few minutes, however, the respiration slowed to such an extent that compression of the chest walls was resorted to in order to stimulate inspiratory effort. Half an-hour after the first injection, a second of $\frac{1}{50}$th of a grain of sulphate of atropine was given. In a very few minutes the pupils dilated to about three millimetres in diameter, the pulse became full and quick, varying from 100 to 120, and the respiration increased in frequency from eight to eleven. The stertorous character of the breathing, however, was not affected, and the tongue had to be constantly held to prevent its falling back over the opening of the larynx, pressing the lower jaw forwards having little effect, the tongue lying like an inert mass in the mouth. No coffee being available, a pint of strong tea was administered per rectum, and mustard applied to the calves of the legs. At about 12 o'clock the pupils showed signs of contracting, and the respiration became slower, each inspiration having the character of a double effort, *i.e.*, the act was divided by a slight pause; the pulse was about 100, full and comparatively strong. A third hypodermic injection of sulphate of atropine was now given. The pupils soon dilated to four millimetres in diameter, and the pulse became quicker—120. The respiration, however, did not improve, but got worse, the inspirations being much shallower, so that constant compression of the chest walls became necessary, for when left to himself the interval between each act became so prolonged, and the effort was so imperfect, that total cessation of breathing appeared imminent every moment. He remained pretty much in this state until about three o'clock, when, to my great relief, the breathing gradually became less stertorous and quicker, and suddenly, at 3.30, he started up, opened his eyes, and stared wildly about. He soon became sensible, and I left him.

The atropine exercised its full physiological action on the heart and iris. The respiration was not much, if at all, affected by it, and had not artificial respiration been resorted to and kept up almost constantly during the whole time I was with him, there can be no doubt but that a fatal result would have occurred.

It appeared, on enquiry, that the patient had not been indulging his morphia propensity for some weeks, when the desire coming strong upon him, at about 8 p.m. he went to a chemist's in Queen-street, and purchased a solution of the drug. A half-ounce phial nearly full was found in his pocket.

MEDICAL SOCIETY OF QUEENSLAND.

THE 78th General Meeting was held in the *Courier* Building, Brisbane, on June 13th at 8.30 p.m. Present: Drs. Hardie (in the chair), Gibson, Hill, P. Bancroft, Turner, Little, Booth, Hoggan, Clowes, W. S. Byrne, Ure, Bancroft, Taylor, Griffin, MacNamara, and Love (Hon. Sec.) Visitors: Dr. Lilian Cooper, Lawes (Children's Hospital), Sutton (Beenleigh). The minutes of last meeting were read and confirmed.

Correspondence was read from Dr. Thomson, resigning his position as Hon. Treasurer. Also from Dr. Ryan, of Gympie, regretting his inability to be present.

Dr. Thomson's resignation was accepted, and Dr. Hill was elected Hon. Treasurer unanimously.

DR. HILL showed a patient with an obscure enlargement of both testicles.

DR. P. BANCROFT showed the duodenum of a child who had suffered from the presence of anchylostoma, also a kidney with dilated ureter.

DR. LOVE showed two large pale kidneys from a case of uræmic coma and convulsions in a child.

The HON. SECRETARY intimated that the balance in the Queensland National Bank to the credit of the Society was £62 17s.; this was impounded owing to the suspension of the bank, and members were invited to pay their subscriptions promptly to relieve the Society from consequent inconvenience.

The PRESIDENT drew attention to by-law 16, which provides that "ordinary members shall consist of any qualified medical practitioners resident in Queensland," &c., and wished to know whether the members present thought it necessary to pass a special resolution to admit women practitioners. He pointed out that such a course had been adopted elsewhere, and thought it would be the wiser plan to follow.

Dr. Byrne accordingly proposed that "rule 16 be held to include women practitioners." Drs. Little and Gibson argued that such a resolution was quite unnecessary, as the wording of the by-law clearly included them. After much discussion the resolution was voted unnecessary.

Dr. Hardie proposed for membership: Lilian Violet Cooper, L.R.C.P. and S.E., L.F.P.S.G., George-street; T. L. Bancroft, M.B. C.M. Edin., Brisbane; Charles Prentice, M.R.C.S., L.S.A., Woolloongabba.

Dr. Gibson proposed: Æneas J. McDonnell, M.B. Ch. M., Toowoomba.

Dr. Love proposed: Alfred Sutton, M.R.C.S., L.S.A., Beenleigh.

The **Hon. Secretary** intimated that Dr. Smith's gift to the library of over 100 volumes had arrived. A hearty vote of thanks was unanimously accorded Dr. Smith for his handsome donation.

Dr. Hardie presented a copy of his work on "Atmospheric Pathology of Queensland, with charts." The thanks and congratulations of the Society were accorded him.

Dr. Clowes gave notice that at the next meeting he would move, "That the subscription for the year be remitted, except in the case of newly-joined members."

CHLOROFORM ADMINISTRATION.

Dr. Turner then read his paper on "Chloroform Administration," which will appear in our next issue. He was followed by Drs. Bancroft, W. S. Byrne, and P. Bancroft, who each contributed short papers.

Dr. J. Bancroft stated that the first apparent death from chloroform he saw was at the Manchester Infirmary. A boy had been injured in machinery, both arms dragged off. He was weak and exhausted from loss of blood. Chloroform was given and both stumps were amputated, one close to the shoulder joint, the other in the middle of the upper arm. After the operation was concluded the unfavourable symptoms were discovered, and great efforts were made to resuscitate the patient. When all hope had been abandoned and the surgeons were leaving the case, one of the apprentices of the infirmary brought up the newly invented magnetic rotatory machine. The poles were applied to the chest, and directly the respiration responded and the boy recovered. A similar machine to that was awarded to him (Dr. Bancroft) as a prize shortly afterwards. In the present Brisbane Hospital chloroform was given to a strong man worn out with toothache. He sat in a chair, and before he could have inhaled a drachm of chloroform the heart ceased to beat. Electricity was applied and artificial respiration continued a long time, but nothing would bring about any cardiac action. No disease was found *post-mortem*. In private practice here a little boy was to be operated on for stone. He took his chloroform badly, and before he was satisfactorily under its influence he appeared moribund. The surgeon in charge exhausted himself in making artificial respiration, and after all hope was lost he (Dr. Bancroft) was permitted to lift the boy up by the legs. Directly an audible inspiration took place, which was followed by recovery. From what he had seen, death begins at the heart, and in giving chloroform he always paid attention to the wrist pulse or that of the temporal artery. While the pulse is working well there is no danger. At the beginning of the inhalations the heart is often inefficient. Then the chloroform should be used sparingly; when the pulse fills out the chloroform may be safely pushed on. Respiratory defects are visible to all around the patient, and proper steps can be taken to correct them, but the pulse tells its tale to the chloroformist only, and it requires no mental effort on his part to estimate its working. He had for more than twenty years used the inhaler here shown. It is a metal hemispherical cup, two and three-quarter inches in diameter, with space cut out for the nose, a wire inside to support lint, which is often renewed and the inhaler scalded and polished. In this it has great advantages over inhalers made of soft materials that cannot well be cleaned. Chloroform is dropped on the lint. The evaporation takes place in the cup and the vapour is not wasted by escape into the air. Chloroform vapour is heavy, and falls down to the patient's mouth, which may often with advantage be kept open. He preferred this inhaler to any he had tried, and so far had not had any unfavourable cases.

Dr. W. S. Byrne read the following:

NOTES ON FOUR CASES OF SYNCOPE DURING CHLOROFORM INHALATION.

By William S. Byrne, M.B.

◆

As this is a chloroform night at our Society, I think it will be interesting to read you short notes on four cases of syncope during the administration of that anæsthetic. The Edinburgh school taught, and still teaches, I believe, its students to "watch the respiration—never mind the pulse," whilst the Dublin school insists on the administrator watching both respiration and pulse carefully. The Edinburgh teaching is borne out by the interesting experiments performed and facts revealed by the Hyderabad Commission; and those facts I have no wish to dispute, but I do wish to place on record before you my clinical experience with chloroform, which has extended now over 16 years.

I have seen many cases where dangerous symptoms have occurred, both with ether and chloroform, during this period, but I must say that it is only within the last three or four years that anxious cases have become so common. In my earlier years of administration my anxiety was of a very minor quantity, but of late certainly it is much greater. Whether the anæsthetics are not prepared so carefully as they used to be, I cannot say; but it is a fact that I think you will all agree with, that what is popularly known amongst us as "close shaves" are more numerous than they ought to be, or than they were a few years ago. This, I am sure, does not arise from careless administration, but from some other factor at present not proved. Up to about three years ago, in giving chloroform or ether, I followed the teaching I had imbibed in my earlier years, and watched both pulse and respiration carefully. After reading the reports of the Hyderabad Commission I certainly paid more attention to the respiration.

My first shock at this time occurred when I was about to operate on a case of hernia The woman had been got under by an experienced anæsthetist. She was breathing well, but something in her looks induced me to feel her pulse. I found it beating very feebly, and almost immediately after the respirations were reduced to gasps. With artificial respiration and all the usual aids she recovered, and does not know to this day that anything unusual happened.

Some time after this I had to operate on a man for fistula. He was a bad subject, as he was, and had been for some years, a free drinker. He was prepared in the usual way, and for a few minutes all went well. Dr. Love gave the chloroform, and I sat by the bedside watching the pulse He became somewhat excited, and I found the pulse flicker and become intermittent. I mentioned this fact to my colleague, and the patient was allowed to breathe air alone. Gradually the pulse recovered itself in about half-a-minute, and nothing whatever being found wrong with the respiration, it was considered safe to proceed. After about a minute the pulse failed utterly. None was to be felt, and the chloroform was again removed. The breathing then was splendid, and remained so for fully a minute and a-half, during which time no pulse whatever appeared. At the end of that time, however, the breathing power began to fail, and in spite of our greatest efforts the patient died.

Naturally this failure of the pulse before the respiration was affected made a great impression on my mind, which was more fully borne out by my next case, in which I administered chloroform, while Dr. Little was about to operate. The patient, a young, healthy married woman, had been prepared in the usual way. The heart and pulse were normal, as far as I could judge, so I proceeded to give the anæsthetic. There was no excitement stage whatever, the patient all through breathing calmly and quietly; and to this fact she probably owes her life. Before unconsciousness was established I noticed the pulse become very weak, and I drew Dr Little's attention to the fact. I removed the inhaler, and gradually its tone was restored. After a few moments I again went on with the administration, but after a few inspirations she became ghastly pale and the breathing stopped. At this time she was not very deeply under the influence of chloroform, for after artificial respiration had been resorted to she opened her eyes and spoke. She recovered after a little while, but I gave her no more chloroform.

In the next case Dr Little was the administrator, but the cause of the syncope here was the fact of giving the anæsthetic on a full stomach. The patient had had a good breakfast, but an accident immediately after rendered chloroform advisable. She took it very well, and it was only when everything was over that she collapsed. I cannot say in this case whether any indication was afforded by the pulse, but I am glad to say she recovered after a quarter of an hour.

There is no doubt in my mind that in giving chloroform one ought not only to carefully examine the heart, but also the pulse, so that any deviation from its usual beat may be at once noticed. I do not mean to say that the pulse always gives the first indication of approaching danger, but there are numbers of cases in which it does so, and an anæsthetist who neglects the pulse or relegates it to the far distance as of little importance will lose one of the most valuable danger signals we possess when dealing with chloroform anæsthesia. Of the facts proved by the Hyderabad Commission, as far as animals are concerned, I am satisfied, but my experience in practice has taught me to value the pulse quite as much as the respiration as a reliable guide.

DR. P. BANCROFT read notes of a fatal case as follows :—

DEATH DURING THE ADMINISTRATION OF CHLOROFORM.

BY P. BANCROFT, M.B., HON. SURGEON BRISBANE HOSPITAL FOR SICK CHILDREN.

◆

MARY R, *æt.* 11 years, had been an inmate of the Hospital for Sick Children for more or less protracted periods during the last two years. She was suffering from complete closure of the jaws by rigid cicatricial tissue on both sides of the mouth. While undergoing surgical treatment for this, she had had chloroform on some fifteen occasions. The anæsthetic was always given in my presence, and several times by me; there were never any unpleasant effects noted from it.

The fibrous tissue was freely excised, and shields, made by the hon. dentist, Mr. Hughes, were worn for some months; but the fibrous tissue rapidly re-grew, and the operation had to be abandoned. All the teeth developed up to this time were removed.

On March 24 chloroform was again administered to enable the hon. dentist to extract some teeth which had since grown and were causing abscess of the cheek.

I administered the anæsthetic. Dr. Lawes, house surgeon, being present The state of complete anæsthesia having been reached, the chloroform was withdrawn and a tooth extracted. The child then showed signs of returning consciousness, and more chloroform was given. On discontinuing the anæsthetic again to allow the operation to proceed, the pulse was noticed to be good. An attempt was then made to extract another tooth, and being unable to reach it from the closure of the jaw, the points of a screw gag were inserted between the jaws and one or two turns of the screw made. Reflex struggling now took place, the head was turned to the right, the eyes opened, the eyeballs being rotated to the right and upwards, and the pupils widely dilated. The gag was taken away, and I was preparing to give more chloroform when I noticed a hitch in the breathing. Compression of the chest immediately restored automatic breathing, but the pulse was noticed to have failed, and in spite of all measures adopted, it did not recover, and in a space of time that seemed of some two or three minutes' duration the breathing ceased.

The face was now very congested; veins prominent. A vein in the temple was opened, artificial respiration being meanwhile carried on.

Tracheotomy was performed to remove any doubt of the air freely entering the chest, but all attempts to restore the child proved fruitless.

A *post-mortem* examination was made by Drs. Turner and Gibson. The cerebral veins and cranial sinuses were found engorged. The middle lobe of the right lung was collapsed in its entirety, and had the appearance of fœtal lung; a wedge-shaped portion of the lower lobe was similarly affected. All the pulmonary glands were enlarged, one lying upon the bronchus of the middle lobe being cystic, with grumous contents. The thymus gland was remarkable; it lay upon the pericardium, and covered the heart over the greater part of its anterior surface It was about four inches long and two inches at its widest part; above it extended to the thyroid gland. The spleen was enlarged, as were also the lymphatic glands of the abdomen. The right side of the heart was flaccid and empty; the left ventricle firm, apparently in systole, also empty. The clinical signs, together with the *post-mortem* appearance, point to the conclusion that death was due to shock, the child having partially recovered from the anæsthetic, the determining agent probably being the use of the screw gag.

DR. LOCKHART GIBSON said: Dr. Byrne was not quite correct in his mention of the Edinburgh school's teaching regarding chloroform administration. Symes' classical remark is constantly impressed upon students, viz., "Watch the patient's lips, and if these keep their colour you need have no fear about the heart." He (Dr. Gibson) contended that the lips if closely watched will give as early an indication of a failing heart as the pulse. The method, so largely adopted in Edinburgh, of using a folded towel for administering chloroform, allows the lips to be watched together with the respiration. Another important teaching of the Edinburgh school is: "It is not the amount of chloroform you put upon the towel that is important and that has to be watched—it is the effect it has upon the patient." The amount put upon the inhaler gives a very inexact index of the amount inhaled. He pointed out that two distinct danger signals have to be recognized during chloroform administration, viz., failure of respiration and failure of the heart; and that for prompt and efficient treatment it is necessary for the administrator to direct his efforts to overcome either one or the other, as the case may be. If the respiration fails first, artificial respiration promptly performed will practically always succeed; and if respiration fails with a strongly-acting heart, and death occurs, the administrator is to blame. If the heart fails first the treatment is the same as for fainting—lower the head and invert, if necessary, to cause a determination of blood to the head, and also, perhaps, as Dr. P. Bancroft suggests, to empty abdominal veins into the right side of the heart to give its cavities something to contract upon; and in addition to this, nitrite of amyl seems to be a most useful drug. He (Dr. Gibson) could not agree with Dr Turner that it is useless to diminish the systemic resistance. Recent research, as recorded by him, goes to prove that chloroform has a directly depressing action on the heart, and lowers blood pressure by diminishing its *vis a tergo*, and not by diminishing the resistance of the systemic circulation. If, therefore, we suddently dilate peripheral arterioles, the heart, suddenly finding that it has less to drive against, is likely to give an initial good contraction in consequence, and after that to continue acting. He had seen good follow the use of nitrite of amyl. Observations on dogs are valuable on account of dangerous symptoms so apt to occur in dogs during chloroform administration. The only death from chloroform he had experienced was in the case of a dog, which suddenly died from failure of heart and respiration. Since then he had frequently used ether for dogs, and had never had reason to be anxious during its administration. Still the shock element could not be reckoned with in dogs, though it was a very serious matter with human beings. The lesson to be gained from *The Lancet* Commission reports, which showed that by far the greater number of deaths occurred in dentists' chairs, was most useful. These reports further showed that most of the deaths occurred within one or two minutes of the commencement of chloroform inhalation, which means that the patient died from nervous shock, or from the shock of an operation commenced while the heart was weakened by the anæsthetic, and perhaps while it was suffering from vagus inhibition, and before the sense of pain had been abolished. The reports of the different commissions do not seem quite definite upon the action of chloroform on the vagus. He could only speak of an experiment upon a rabbit performed some 11 years ago in conjunction with Pro fessor Rutherford. It seemed to prove that when an animal is under the influence of chloroform the cardio-inhibitory fibres of the vagus are paralysed. The vagus of the rabbit was isolated and divided. While it was thoroughly under the anæsthetic, stimulation of the peripheral portion of the divided nerve by the electrodes of a faradic current caused no inhibition of the heart; but when the animal was allowed to come from under the influence of the drug the same stimulation caused the usual inhibitory effect. Upon this ground one has been accustomed to explain the use of atropin prior to chloroform administration as valuable, because it paralyses the vagus, and so removes the risk of reflex inhibition of the heart from shock in the initial stage of chloroform anæsthesia, and before the chloroform has removed this risk for itself. He had listened with great interest to Dr. Turner's paper, and thought that the Society owed him a debt of gratitude for it.

Dr. Little said that he had had three close shaves. In one case the man's respiration ceased while the pulse was still strong. Artificial respiration was performed with success. In this case the man's face was flushed, and suspension would have been a mistake. In the second case the heart's action gave way first, some time before respiration. The face was blanched. This was clearly an opposite form to Case I. In all probability the truth lay in the fact that either heart or respiration may fail first. The Hyderabad Commission found that with a strong, healthy heart in animals, respiration failed first; but in human beings disease often renders the heart liable to go first. The influence of fear upon the circulation had also to be taken into account. He warned specially against giving chloroform on a full stomach, or in anything but the horizontal position. It was necessary also to watch the patient for some little time after he had apparently come out from the anæsthesia. This case of syncope occurred five minutes after consciousness was regained.

Dr. Griffin was glad to be able to say that he had had no fatal cases. He had had an "untoward case" once in a dentist's chair. The patient was a stout woman. She suddenly became pallid and the heart stopped, but was caused to beat again by forcible manipulation of the præcordium. He condemned timidity on the part of the administrator, as no safety lay in slow administration, and strongly insisted that the anæsthesia should be continuous, and the patient not allowed to come partly out till the operation was over, as shock was then less likely.

MEDICAL SECTION OF THE ROYAL SOCIETY OF NEW SOUTH WALES.

A large meeting of the Medical Section of the Royal Society of New South Wales was held at the rooms of the Society, Sydney, on Friday, June 23, at 8.15 p.m.

The chair was taken by the Chairman of the Section, the Hon. Dr. MacLaurin, M.L.C., and 64 members and visitors were present.

Dr. Sydney Jones exhibited a patient suffering from myxœdema, and explained the case. The patient was subsequently examined by most of those present.

Dr. James Graham then read a paper on "Peripheral Neuritis," dealing specially with that form of the disease which is specially prevalent among the Chinese in Sydney. Two Chinamen suffering from the disease were exhibited, as well as a patient with peripheral neuritis, the result of arsenical poisoning.

Prof. J. T. Wilson then read a paper on "Recent Investigations on the Structure and Development of the Nervous System," illustrated by diagrams and microscopical specimens.

Owing to the lateness of the hour, on the motion of Prof. Anderson Stuart, seconded by Dr. F. H. Quaife, the discussion was adjourned.

The recent additions to the University Museum of Anatomy and Pathology were on view during the evening, and formed an interesting and attractive feature in the programme.

The adjourned meeting has been fixed for Friday, July 21, at 8.15, when several leading members of the profession have promised to take part in the discussion, and a large and important meeting is anticipated.

BALLARAT (VIC.) BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Monthly meeting held at Ballarat on the 27th April. Present: Dr. Pinnock (in the chair), Drs. Salmon, Mullally, Mitchell, Morrison, and Dr. Champion (a visitor).

Apologies were received from the President (Mr. Whitcombe) and the Hon. Secretary (Dr. Scott).

The minutes of last meeting were read and confirmed.

Dr. Mitchell read a paper on "The Summer Diarrhœa of Infants," which he dealt with in a very interesting and instructive manner, and which was followed by a discussion, in which most of those present took part.

SUMMER DIARRHŒA OF INFANTS.

By J. T. Mitchell, M.D., C.M. Aberd.,
Ballarat, Victoria.

The many diseases grouped under the name of summer diarrhœa of infants are frequently puzzling as to their exact diagnosis, and still more puzzling as to their appropriate and successful treatment. And yet during the summer months there is no malady, not even enteric fever, that gives us so much anxiety and trouble, and brings us sometimes more discredit than this.

In opening the discussion this evening on this important subject I shall endeavour to look at the *practical* aspects of the case, and deal with it rather from the family physician's point of view than from its more scientific side. And I shall avoid the consideration of those cases which would be grouped together under the name "tubercular," limiting my remarks to those of a more or less acute or chronic character, which are not due to any cause of a specific nature.

Foremost among the causes of this troublesome disorder, in the minds of the public at least, is teething; and the recognition of this fact among mothers and nurses does much to increase our trouble and aggravate the sufferings of the children. So long as it is "only the teeth" a child is allowed to go on for many days, or even for weeks, with the trouble unchecked and untreated, except it may be an occasional dose of the panacea, castor oil. Presently, however, the progressive wasting of the infant compels attention, and the doctor is called in to discover that he has a somewhat formidable case to deal with. Without doubt dentition is an *important* factor, but it is not an essential one, nor is it of anything like the importance that is sometimes placed upon it. The children cut their teeth all the year round, and yet this disorder is practically limited to four months out of the 12. Clearly then another factor of considerable importance must be added, namely, the season of the year; and it is during the summer that the great bulk of our practice in this direction will come to us. It seems to me that the past summer, with its frequent and sudden changes, and much close, muggy weather, has been particularly fruitful; but I have not been resident in Ballarat for a long enough time to speak with authority on this point. The influence of the season is of a two-fold nature. Upon the child the effect of great heat leads to exhaustion and malaise, with enfeeblement of digestive power, while the chills of the cold changes are even more dangerous, especially when the child is improperly clothed. But it is the effect of the heat upon the foodstuffs that we must take more seriously into consideration; for of all foods milk is the one most easily affected by heat, and it has this dangerous characteristic, that it may be so far altered as to be irritating and injurious to the child long before the changes have gone on so far as to be appreciable to the nurse.

The habit the Ballarat dairymen have of mixing yesterday afternoon's milk with this morning's and selling the mixture as "fresh," is, I am sure, a very fruitful cause of suffering to infants. And also, I cannot but feel that some of the many "preservatives," which are added to the milk to keep it sweet before and after sale, add another element of danger which we should not overlook.

I scarcely need insist upon the fact that this disorder is met with amongst artificially-reared children in an infinitely greater proportion of cases than amongst those purely breast-fed. The reason is obvious, for in the latter cases the element of danger from changes in *quality* of food is practically excluded. Doubtless we very frequently see cases of diarrhœa in breast-fed infants due to chills or dentition, or alimentary disturbances in the mother, but for the most part these are easily and quickly relieved, and give but little anxiety. I have made very searching inquiries in every case of real "summer diarrhœa" that has come under my notice for the last four years, and not one of the children has been absolutely breast-fed. Often enough mothers have claimed pure breast feeding, but a more careful enquiry elicits the fact that at some time or other some of the many patent foods have been given. Not many weeks ago I caught a nurse in the act of administering plain boiled sago to an infant a few hours old. But had I not accidentally caught her I should never have discovered the fact.

It has grown to be almost an axiom with me that a child deprived of breast milk very early, and brought up by hand, will assuredly have an attack of summer diarrhœa between eight and 14 months old. The social position of the parents makes a difference certainly in the chances for or against the disease, for the more care and attention to minute details gives greater immunity. But even the most wholesome and well-prepared food will do injury if supplied in paraphernalia which may be imperfectly cleansed.

Coming now to the disease itself, we notice the increased frequency of evacuation, amounting sometimes to 30 a day and varying in colour, quantity, consistence and general appearance so much that we can scarcely think of anything as typical; for in the same child within a few hours we may get profuse, watery stools, and then small dabs of almost colourless, evil-smelling stuff. But on the whole the *odour* is completely altered from the normal to an earthy smell, or to one so penetrating and unpleasant as to make it a cross to have to attend the child. A careful examination of the motions will always show imperfectly digested food, and very frequently small quantities of slimy mucous or blood. It is here interesting to notice popular nomenclature. "So long as there is no blood in the evacuations there is no great danger, and the case is one of *diarrhœa* simply. But as soon as blood appears the case has gone on to *dysentery*, and the child is in much danger." So say the mothers and nurses.

The progressive emaciation of the child is slow at first, but afterwards becomes more rapid. This may not be noticed by observing the face only. Frequently, indeed, the face is the best part of the child, and does not become pinched and gaunt till things have progressed to an advanced stage. But the skin of the abdomen rapidly assumes a flaccid, shrunken appearance, and a clammy moisture is almost constantly present; and somewhat late on in the progress of the disease we usually find the kidneys suffering, so that there is, more or less, suppression of urine, with attendant dropsy and characteristic brain symptoms.

Of other symptoms the only one I will trouble you with is vomiting, and this often comes on early and persists at intervals till the end. Sometimes it is the very earliest symptom, appearing a week or two before the diarrhœa. It is interesting to notice the variations in quantity of the ejected matter, which may be but a fraction of what the child has taken, or may be of so much greater bulk than the food that one really wonders where it all came from.

The causes of death in this disease are various, but in my experience they are chiefly:—1. *Starvation* from inability to digest food, or even to absorb or assimilate digested food; 2. *Exhaustion* from the numberless evacuations, resulting in severe nervous depression; 3. *Uræmia*; 4. *Marasmus* supervening. It is no uncommon thing to find every symptom of the disease absolutely subside, and in spite of all this apparent improvement for the child to gradually sink away.

I suppose the main part of our discussion will be in the direction of the *Treatment.* And here we are met with the "*post hoc*" difficulty in greater force than usual. I do not know any other disease, except, perhaps, influenza, where one has more temptation to praise the last remedy than we have here. The public certainly do this, and it is well for us if the last remedy be one that we ourselves have prescribed. For, if an old wife have suggested ever so trumpery and insignificant an addition, the credit will assuredly go from us to her. And even blame is put upon us for having omitted to advise such an obviously simple and effective mode of treatment. I wish this were limited to our ignorant and less remunerative patients, but I have found educated and intelligent people quite as hard to deal with as any others in this respect.

Our treatment must of necessity be twofold, viz., *Dietetic* and *Therapeutic.* And I have with purpose placed dietetic first; for whatever drugs may or may not be given, the case will go from bad to worse unless the proper dietary alterations are made; whereas very many cases will at once improve and gradually tend towards recovery under a proper and suitable diet without any drug treatment at all. And therefore the first step will be to cut off the irritating food and supply something else.

Recognizing, as we do, that the main factor in the disease, or at any rate the most probable exciting cause, is the ingestion of some irritating substance, the most natural routine practice is to administer a purgative and clear out the offending material. This answers very well if we get the case early enough, but I have not seen particularly good results from this method when enteritis has already been set up. And probably either castor oil or rhubarb is the best, from the well known secondary constipating action. The residue of previous irritating foods being thus got rid of, we are now free to feed the child upon something which will not cause so much irritation. In my earlier practice I followed my London teachers in witholding food altogether for 24 hours, with very fair results. Then, following Roberts, I allowed whites of eggs to be beaten up in the water which was administered to the infants. Later on, again, I supplemented this albumenized water by juices either scraped or squeezed from lean meat, or extracted in cold water, or simmered in the usual manner. And I must confess that I see no reason for reverting to my older methods, for the children certainly do not become so depressed and exhausted as heretofore.

I am convinced that in meat juices we have a most suitable and successful method of maintaining the child's strength during the course and subsidence of the enteritis. Requiring, as they do, an almost entirely different series of digestive processes, the failing machinery, so to speak, obtains needed rest while new forces are brought into play.

I am very decidedly of opinion that these juices should be freshly prepared, even to the extent of two or three preparations a day in the really hot weather. I do not regard the patent or proprietary meat juices, broths and jellies, as at all comparable with those made by an ordinarily intelligent and skilful housewife from day to day. And hence I never suggest the prepared article unless I find the attendants incompetent to make the fresh one, which is very rarely. I used to find, however, that mothers had great difficulty in squeezing the juice out, so I advised Roberts' method of mincing the meat and adding half a pint of cold water to half a pound of meat, to stand cold for two hours and then be squeezed through muslin. This is an extremely easy and effective method of providing a nourishing and digestible extract of meat, but its bulk is rather against it, for not seldom the infant will vomit the liquid unless given in very small quantities. A suggestion was, however, lately made to me that the fresh meat might be cut up and squeezed in an ordinary tincture press. This gives the pure juice only, and as the product is, bulk for bulk, very much more nourishing than the cold infusion, the small dose necessary for a meal renders it in many cases superior to the infusion. Under the pure juice I find the infants usually become parched with thirst, and take liquids greedily. Cold water previously boiled answers well in allaying the thirst and does not excite vomiting any more than if it be mixed with spirits. And here I might say that I avoid spirits as a routine practice, ordering them only when some special condition seems to call for their administration. Instead of the plain cold water I frequently order barley water or rice water, which the infants will take readily, especially as the latter is somewhat astringent.

In addition to the meat juice, or at a later stage, when convalescence is setting in, it is often found advisable to give some vegetable food. Of all these I have found flour, when thoroughly boiled and then baked, the most useful. We may sometimes also give arrowroot or go on to some of the patent foods, such as Neave's or Nestle's, which mothers usually hold in high estimation.

Later on we shall have to return to milk diet with extreme caution. At the first exhibition of this food I feel it scarcely safe to omit partial predigestion. If possible I advise sterilization of the milk. No doubt the predigestion of milk and other foods has been carried to excess, but it is equally certain that in many cases judicious use of this method is followed by the best possible results. By the way, I came across an infant in Ballarat that had been fed on zyminized milk for five months through a mistake of its nurse. In spite of this he made an excellent recovery, and is a fine strong boy, three years old. I have a decided weakness for *fresh* cows' milk or goats' milk, and endeavour to persuade mothers to use this rather than even the best brands of condensed milk.

On the border line between dietary and therapeutics we have the administration of those substances which assist or actually perform digestion in the stomach. Foremost among these I rank ingluvin, which has seemed to be superior to either pepsin or pancreatin, while bynin has, for some reason or other, dropped out of my practice. I look upon these as temporary expedients only, to be discontinued as soon as their mission is accomplished, just as we would discontinue any other therapeutic measure.

Of actual drugs we have three classes that commend themselves to our notice, viz., antiseptics, astringents, and sedatives.

At present the antiseptic group is probably the most in fashion to combat the great tendency to fermentation and decomposition of foods in the alimentary canal. I shall content myself with simply enumerating those which in my hands have proved most efficacious. Most commonly I begin either with liquor arsenicalis or the perchloride of mercury solution, and failing these I move on to the salicylates, either of mercury, bismuth, or soda.

Amongst the astringents I rarely go beyond catechu, the chalk mixture, or the dilute mineral acids, some of which latter seem to reduce the liability to fermentation of the contents of the intestines.

And among the sedatives I use the more ordinary carminatives, and am old fashioned enough to believe in opium, for I have continually borne in upon me the truth of Wilks' statement that not only does it relieve pain, but it is in inflammatory conditions one of the best and most constantly successful drugs we possess. Where vomiting is a troublesome symptom I am in the habit of combating it with very small doses of calomel, or grey powder, or ipecacuanha, or even bicarbonate of soda.

Of late years we have heard a good deal about washing out the stomach and the intestines. Of the former I have no experience, and of the latter I can only say that in several cases the washing out of the last foot or eighteen inches of the canal has given marked relief, easing the pain and straining, and consequently lessening the number of stools.

A very useful addition to the above-mentioned methods of treatment is the application of a pack to the abdomen, wet either with water or equal quantities of water and spirit.

And when convalescence is so far established as to permit a journey it is my custom in almost all severe cases to advise a thorough change of air. This is of great benefit to the mother after her close watching and anxiety, but the good effect upon the child is still more marked, and recovery is much more rapid than it would have been at home.

After some routine business had been dealt with, the meeting adjourned.

Monthly meeting held on the 25th May. Present: Mr. Whitcombe (President). Drs. Morrison, Mullally, Pinnock and Scott. Dr. Champion was present as a visitor.

The minutes of last meeting were read and confirmed.

DR. MULLALLY read notes on a "Case of Sudden Death in a patient suffering from Hydatid Tumour of the Liver." The patient was a strong, healthy girl, aged 24, with no organic disease except a large hepatic hydatid. One day while sitting up in bed she suddenly fell back and expired. *Post-mortem* aspiration (a full autopsy could not be obtained) showed hydatid fluid. The only cause to which death could be attributed in this case was syncope, due to pressure of the cyst on the heart.

Dr. Teevan's notes on a "Case of Diabetes Mellitus, treated by the Pancreatic Treatment," were read in his absence by the HON. SECRETARY. In this case the treatment was faithfully carried out and persevered in for several months; but finally, as the patient was not improving, had to be abandoned for the more time-honoured treatment of codeia and diabetic regimen.

A NUMBER of medical men practising in the Goulburn Valley (Victoria), have formed a branch of the British Medical Association. The meetings will be held at Mooroopna on the first Friday in each month. The office-bearers of the "Goulburn Valley Medical Association" are: Dr. Heily, of Rushworth, President; Dr. M'Ginness, of Numurkah, and Dr. M'Kenna, of Shepparton, Vice-Presidents; and Dr. Florence, of Mooroopna, Honorary Secretary. The annual subscription is two guineas.

NOTICE

The Editor will feel obliged by any gentleman, who wishes to ventilate any subject of professional or public interest, writing an editorial or leading article on it which if found on perusal to be consonant with the policy of the paper, will be inserted in an early number.

☞ *All communications intended for the Editor should be sent to the 'A. M. Gazette' Office, 13 Castlereagh Street, Sydney.*

⁂ *Contributors can have their Papers reprinted and published in Pamphlet form, at Cost Price, if the necessary instructions are given to the Publisher at the same time the contributions are sent in.*

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, JULY 15, 1893.

EDITORIAL.

THE CHILDREN'S HOSPITAL, SYDNEY.

A SUBJECT of some interest to the profession, but of vital importance to people possessing children in the city and suburbs of Sydney, is the question relating to the addition of a "Diphtheria Ward" to the Children's Hospital established many years ago at the Glebe. It is of infinitely the most moment to the poorer members of the community, who never possess adequate means for the successful treatment of this dread disease. No more fitting place could have been chosen for such additional accommodation, yet the local people, especially some of those who believe, under what appears to be a delusion, that they are the *élite*, have met in public meeting to protest against its erection on the ground of their belief that thereby extra danger of contracting the disease would be incurred by themselves. Any movement more inherently selfish it is impossible to conceive. Even were the protest made against the initiation of an institution for the reception of cases of this disease, it would be without decent excuse; but when, as in the present instance, it is made against the provision of better space for the reception of cases which have been for some years treated in what has been found to be deficient accommodation, it becomes positively contemptible in its reckless disregard of the good of everyone but themselves. A well-managed ward for the treatment of this disease is less likely to be a focus of infection than a single case in a private house, retained there because there is no provision made for its treatment under hospital conditions. The speakers were most emphatic in their condemnation of the proposal, but the facts given by them, when enquired into, do not support their assertions.

For instance, one person said that a child was infected about three months ago in a house opposite to the hospital as a consequence of its proximity to that institution, whilst enquiry shows that there has been no case of disease in it since January. Other speakers suggested that there is no necessity for the ward, as the children can be as efficiently treated at the Coast Hospital. Admitting this to be true, the length of the journey—some 11 miles—to it in a draughty vehicle, the consequent fatigue and exposure, and the cold, keen air of the coast, would render the same skill far less potent than it would be under the favourable surroundings which the Children's Hospital affords. The meeting has not been without its usefulness, for it shows in all its ghastliness the selfishness of the people composing it, and the utter disregard of the wellbeing of the helpless which was exhibited by many interesting specimens of the self-righteous pseudo great ones. Happily, however, the project has not been blighted by the puny effort. The ward is built, and poor children infected by the fell disease will in many cases have their chances of recovery infinitely increased, whilst the embroglio bids fair to act usefully by ridding the institution of members of its governing body who have been for years, when occasion happened, detrimental to its peaceful progress.

LETTERS TO THE EDITOR.

IN DEFENCE OF HYPNOTISM.

(To the Editor Australasian Medical Gazette.)

SIR,—It were well that the medical world should not be swayed by the vague surmises and baseless prejudices which commonly rule in ordinary life. To examine all things and to hold fast that which is good ought surely to be the only principle for guidance admitted. *A priori* judgments, almost if not altogether useless in science, are sometimes even fatal to progress, which can only be gained by the narrow path of observation and patient induction. The arts of the advocate or the satirist are entirely out of place—sources of weakness rather than of strength. Of late years the subject of hypnotism as a therapeutic agent has attracted a great deal of attention, and has given rise to much heated discussion. And now at the present moment a determined effort is being made to so discredit it that the medical professiom may be induced to abandon any attempt to investigate its claims to therapeutic value.

It has become a commonplace that many of the highest authorities in England condemn hypnotism *in toto*, allowing to it little, if any, therapeutic value whatever, and affirming that the use of it may be followed by the most disastrous results.

The question is of sufficient importance, I believe, to warrant an examination of the grounds on which this idea rests.

First then, who are the numerous authorities who have vetoed the use of hypnotism? As far as can be ascertained, they resolve themselves into four; and none of them, it seems, have ever attempted to prove by experiment the value or otherwise of hypnotism. They have either formed their conclusions from the statements of others who were equally biassed against, or ignorant of, the subject, or, accepting the extremes and absurdities which a section of those engaged in the study of hypnotism have fallen into, as representative of the whole, have judged it unworthy of further investigation.

Sir Andrew Clark, Dr. B. W. Richardson and Dr. Norman Kerr—the two former incidentally, the last persistently—have stated that the employment of hypnotism is injurious, both morally and intellectually, but none of them have given a single instance in their own experience or that of other medical men in which it is proved to be so. Dr. Kerr has particularly distinguished himslf by the unmeasured abuse which he heaped on the subject at the annual meeting of the British Medical Association, and which drew forth on him the condemnation of most of those present in the Psychological Section. The *Journal* stated afterwards in a leader: "One speaker after another pointed out that Dr. Kerr had not brought forward a single fact in support of his statements." In spite of this, Dr. Kerr re-asserts that hypnotism is frequently followed by "disturbed nerve equilibrium, intense languor and exhaustion, physical decadence, moral perversion, the induction of hysterical affections and cerebral conditions conducive to mental unsoundess." It is quite unnecessary to seek to combat statements of this kind, unsupported by a single shred of evidence.

It is different, however, with Mr. Ernest Hart—perhaps the most consistent and persistent of all the opponents of hypnotism. For several years he has made the journal which he edits the channel for several powerful and *à l'outrance* attacks on hypnotism. Mr. Hart is a man of wide fame, who has distinguished himself in many directions, and he claims, moreover, an intimate acquaintance with the developments of mesmerism and hypnotism for the last 30 years. His opinions have, without doubt, greatly influenced the medical profession in its attitude towards the subject. In an article on "Hypnotism, Hysteria and Humbug," in the *British Medical Journal* of December 3, 1892, he thus sums up his ideas on the value and dangers of the subject: "The practice of hypnotism is almost invariably useless and often dangerous, even in the hands of the most skilled, careful and conscientious physicians. It is liable to gross abuse, and is frequently the means of fraud and imposture, extortion of money and degradation of body and mind. It is apt to induce serious injuries to both." Here are charges as grave as those brought by Dr. Norman Kerr, and by one who is certainly much better qualified to speak. Not content with this, Mr. Hart, intent on dealing hypnotism its *coup de grâce*, enters the lists again in the *Journal* of January 14, 1893, with an article on the "New Mesmerism." In it he goes out of his way to attack the Psychical Researchers, whom most people, in their innocence, used to look upon as above suspicion; and he also discovers some of the investigations which have led him to denounce hypnotism as he does. This last is eminently satisfactory to the supporters of hypnotism, for it enables them to see the grounds on which Mr. Hart bases his opposition to it.

First of all he proceeds to Paris—the birthplace of not a few of the absurdities which have agitated the human mind. There he sits at the feet of Professor Charcot, and has no difficulty in accepting docilely all his conclusions. A short time at Le Charité convinces him, and with reason, that Dr. Luys is either the prince of charlatans or the dupe of his own imagination and the hysterical subjects with whom he is surrounded.

I believe Mr. Hart has visited Nancy, but about what he saw there he maintains a discreet silence. Then, armed with weapons in Charcot's dicta and Luys' tomfoolery, he pricks on gaily to the extermination of hypnotism, calmly ignoring that there may be others who have a claim to be heard. Charcot's is certainly a name to conjure with, but a little consideration will show that his conclusions do not represent the alpha and omega of hypnotism.

Fifteen years ago his attention was attracted to the subject, and having to hand at the Salpetrière a number of hysterical women, he commenced experimenting on them, and, as might be expected, obtained some wonderful results. In brief, his conclusions were that the hypnotic state was a nervous disorder allied to hysteria; that it could only be induced in hysterical subjects, and that it was of little use therapeutically.

As regards Luys, for several years back he has been making La Charité the centre of such scientific buffoonery as well merits the castigation which Mr. Hart bestows on it in "The New Mesmerism." There has been so much lately about Luys' experiments in the daily papers that there is no need to describe them here. But the study and application to therapeutics of hypnotism have been little, if at all, aided either by Charcot and his pupils or by Luys. It is the so-called Nancy school, founded by Liébault, which has brought into prominence the value of suggestion and the fact that the hypnotic state is not a neurosis, but a psychical state closely resembling sleep, and probably no more pathological than sleep is. As Moll says: "The two characteristics of hypnosis are suggestibility and the power of ending the state at pleasure. We do not find these united in mental disorders, nor in neuroses; but we find them in sleep in which suggestion induces dreams by means of stimulation of the senses, and from which the subject can be aroused at any moment by an external stimulus."

The "suggestionist" school have also shown that nearly all mentally healthy persons are hypnotizable, thus disproving Charcot's theory that the state is found only in hysterical patients. This Nancy method has been adopted, and is being much and successfully used by physicians, not only in France, but in Holland, Germany, Sweden, Italy, Russia and Spain, and also in England and America.

But Mr. Ernest Hart, like Gallio, cares for none of these things. He has started with the postulate that hypnotism spells hysteria and humbug; and though he could see at any time in London, Nancy, Amsterdam or Stockholm, hypnotic suggestion used with striking success in certain disorders, he has already made up his mind, and so argument or illustration is thrown away.

It is enough to point out to others the sources from which Mr. Hart has drawn his conclusions, leaving for them to judge if his experience and knowledge are sufficient to give the direction to the attitude of the medical profession towards hypnotism.

It will be worth while to consider shortly the objections to hypnotism. They are mainly:—

1. That only the hysterical can be influenced, hypnosis being allied to hysteria.

2. That its use brings about mental deterioration, and is objectionable ethically.

3. That it is of little or no value as a therapeutic agent.

The first objection has almost entirely been given up. Charcot himself has ceased to affirm it, though his "grand hypnotisme," which is hardly ever found outside the Salpêtrière, is probably a hysterical development. Nearly, if not all individuals can be more or less influenced, and it is certain that the possession of a strong will or intellectual superiority is no bar whatever to the induction of the state.

As to the second objection—that hypnotism may produce mental deterioration—it is altogether a hypothetical one, because the opponents of hypnotism have not been able to bring forward a single case in which such a result has followed the use of hypnotic suggestion as a curative agent by a medical man.

There are two recent and oft-quoted cases which seem to form the basis of all the wild charges against hypnotism, and it will be well therefore to refer to them. One is related in the *New York Medical Journal* of March, 1891, and the other in the *Journal of Mental Science*, January, 1891.

In both a stuporose state came on after hypnotism, which lasted in one case about a week, and in the other several months.

Observe the history of the patients. Both were neurotic, one being a masturbator, and at the time of the experiment in a highly nervous condition; the other, with a bad family history, was from constant drinking and sexual excess, physically unstrung and in a state of extreme nervous tension. In both instances the hypnotizer was not a physician, but an amateur, who induced the state for amusement, and doubtlessly harassed the subject with the terrifying suggestions which are usually given at public entertainments. It is evident that both patients were not far off the border-line of insanity before being hypnotized, and their subsequent mental condition may have been only a "*post hoc*," though it is quite possible that the foolish and unskilful hypnotization was the cause. In fact it is wonderful, seeing how common these disgusting public performances, with their paid subjects, are, that there are not many similar cases chronicled, for very often the most excessive mental agitation is produced by suggestion night after night for weeks, or even months. I think there could hardly be a more striking proof of how harmless hypnotism is. It goes without saying that there is nothing corresponding to this in the medical use of hypnotism.

The third objection, that hypnotism is of little use therapeutically, is not borne out by the facts. Charcot and his pupils certainly have had little success with it, but then they have reserved its use for cases in which it was least applicable. On the other hand books have been published by medical men in nearly every country in Europe, giving detailed accounts of numbers of cases treated with much success by this method.

Two of the most recent witnesses for the value of hypnotic suggestion are Dr. Schrenck-Notzing, of Munich, and Dr. Brunnberg, of Upsala. Dr. Schrenck-Notzing gives particulars of 70 cases of sexual disorders treated by hypnotism. They included onanism, satyriasis, impotence, sexual anæsthesia, and sexual perversion. In the majority of these cases either cure or decided improvement was effected. Dr. Brunnberg publishes a pamphlet in which he claims the most brilliant results in the treatment of menstrual disorders, especially menorrhagia and dysmenorrhœa. But perhaps a *resumé* of the report in the journal of the Psychical Research Society on the congress of experimental physiology and hypnotism, held last year in London, will afford as good proof as any, and as the statement of experts in this subject reads curiously beside the denunciations of Mr. Hart. "There is now a more universal admission of the therapeutic advantage derivable from hypnotic suggestion. The former doubt as to this beneficial action was mainly connected with the view, now rapidly losing ground, that hypnotism was in itself a form of hysteria, and likely to induce other forms. It still remains impossible to doubt that injudicious hypnotism may do serious harm, but the mishaps thus far recorded have been fewer than was probably expected in any quarter. On the other hand many of the cures effected by suggestion have now had time to prove their permanence. Along with this fuller agreement as to the desirability of frequent use of hypnotic suggestion in medical practice went the general recognition of the important fact that susceptibility to hypnotic suggestion is not in itself an indication of hysteria or of any other morbid condition whatever in the subject. . . . It is a clear gain to have arrived at a general agreement that hypnotism, as a subject of psychological study, cannot be limited to the hystero-epileptic phenomena investigated at the Salpêtriére, and to have got beyond the various crude, quasi-physiological deductions of all hypnotic phenomena from hypothetical changes in cerebral circulation." Thus runs the report on the congress. It is certain that the progress of hypnotism is not to be hindered unless better arguments than those of calling it "humbug," "modern witchcraft," &c., are forthcoming. If the men who excel in this would refrain for a little and endeavour by experiment, either with cases of their own or by observation of those of others who have followed the inductive method to arrive at the truth, there would be some chance that hypnotism would be dealt with by the ordinary scientific methods recognized in medicine, not by the *à priori* "it is impossible," which we know was urged so persistently against the introduction of anæsthetics. It is to be hoped that medical men in Australia will not content themselves with the secondhand and often erroneous conclusions of others, but will thoroughly investigate for themselves the claims of this departure in therapeutics.

I am, Sir, Yours truly,
RICHARD ARTHUR, M.A., M.D.

Mosman's Bay, Sydney,
April, 1893.

ELECTRO-MAGNET OPERATIONS ON THE EYE.

◆

(To the Editor of The Australasian Medical Gazette.)

SIR,—Dr. Pockley's paper on "Chip of Steel in Vitreous Body," read before the New South Wales Branch of the British Medical Association on May 5, and published in the last number of *The Australasian Medical Gazette*, gives the history of a case in which the chip of steel was successfully removed by help of the electro-magnet. The operation was performed under chloroform, and the patient, a boy of 18, was kept in a dark room for a fortnight afterwards.

As operations of this kind seem to be rare in this part of the world, I beg to be allowed to state that I have successfully performed three operations of this kind in Sydney. The first, made with the assistance of the Hon. Dr. MacLaurin, was published in *The Australasian Medical Gazette* of December, 1887. The second consisted of an easy extraction of a larger chip of steel from the anterior chamber of the eye, where it had rested for nearly a year without inflaming the iris or creating cataracta traumatica. The third was performed with the help of Dr. Crago, and was mentioned by him in the discussion which followed the reading of Dr. Pockley's paper, but which mentioning was omitted in the published report. In cases No. 1 and 3 the foreign body was extracted from the deeper parts of the vitreous body. All three operations were performed without chloroform and without submitting the patients to a dark room afterwards. Since my return from Europe I have heard that the sight in each of these cases remains perfect.

Yours faithfully,
B. SCHWARZBACH.

28 College-street, Sydney,
June 20.

AN IMPOSTOR.

(To the Editor of The A. M. Gazette.)

DEAR SIR,—In the middle of April I wrote to the Medical Board of New South Wales calling their attention to a paragraph in the *Sydney Morning Herald* (a copy of this paragraph I now enclose), in which it was reported that an individual bearing my name had been sentenced to six months' imprisonment for stealing a saddle, and it was also reported that the prisoner had previously been "practising as a doctor" at Robertson. A similar report was printed in the Sydney *Evening News* of, I think, April 12.

Up to this the Medical Board has taken no notice of my letter, so I should be glad if you would insert a paragraph in the next issue of the *A.M.G.* to let all my friends who may read it know that I am not the person who is "doing" the six months.

I am, Sir,
Yours faithfully,
HERBERT STOTT LINDSAY, L.R.C.P.L., &c.
Muttaburra, Queensland,
June 5, 1893.

ANOTHER IMPOSTOR.

(To the Editor of The A. M. G.)

SIR,—The following paragraph appeared in the *Evening News* (Sydney) of the 18th May :—

"Before Mr. Clarke, S.M., at the Water Police Court yesterday, Robert Ussher Russell, 37, described as a medical practitioner, was charged with having forged a certain medical diploma with intent to defraud. An application for a remand was made by Sergeant Johnston, who intimated that Russell had been arrested at Port Macquarie. Mr. Maddocks Cohen, defending the prisoner, opposed the remand, and intimated that the prosecutor, E. Thomas, a medical agent, did not desire to prosecute. The matter was allowed to stand back until the prosecutor was sent for. He then informed the Bench that he had no evidence to offer, as certain circumstances had come to light since the issue of the warrant. Russell was thereupon discharged from custody."

Now, the prisoner in the above case, I have abundant proof to show, is an impudent impostor. For some years he has been flaunting about the colonies a clumsy pen and ink sketch, which he calls his "diploma" from the Royal College of Surgeons, Ireland. To several persons at Fernmount, where he was "practising" (this practice he lately bought), he had the audacity to point out my name and number of certificate in the Medical Register and claim them as his own.

He also described himself as Dr. Robert Ussher Russell, lately of Hospital for the Insane, Parramatta. It was explained to him that a Dr. Robert Ussher Russell was still an officer in the hospital. He said that he was "junior." After being asked other compromising questions on the subject his defence broke down, and he had to admit that he was personating me, and that his real name was Gill.

Gill has quite recently personated me at a small township called Moulamein; however, he left in a hurry, as the police were making enquiries.

Cannot something be done to prevent this man from continuing to thus deceive the public and libelling me?

I am, Sir, yours, &c.,
ROBERT USSHER RUSSELL,
Senior Medical Officer, Hospital for Insane, Parramatta.
May 20, 1893.

[We fear our correspondents have no remedy for their very substantial grievance unless they can induce some persons who have paid money to these men in consequence of their having represented themselves to be Dr. Ussher Russell and Dr. Herbert Stott Lindsay, to prosecute them for obtaining money under false pretences. The Medical Bill, when it becomes law, will render the continuance of such conduct impossible.—ED. *A.M.G.*]

DR. MILFORD AND "BRUCK'S MEDICAL DIRECTORY."

(To the Editor of The Australasian Medical Gazette.)

SIR,—I have read in the last issue of the *Australasian Medical Gazette* my letter to yourself and subsequent list of degrees, appointments, and other professional offices which I have held since I was admitted to the profession in 1856.

I have also read your note upon my letter coming immediately after the list, and it is with regard to that note I must request the insertion of this communication. You state that the mistakes which occurred were due to my own fault, for not filling up a form which was sent to me by the publisher of the "Medical Directory." I recollect receiving the printed form, and did not think it necessary to reply to it as my degrees and diplomas appeared in the last edition of "Bruck's Directory," and in order to ascertain my qualifications it was only necessary to transfer the paragraph following my name from the old edition to the more recent, and confirm it by reference to the Medical Register of Great Britain and the list of Legally Qualified Medical Practitioners of New South Wales.

I had been, during the first year of the existence of Mr. Bruck's paper, the editor of that journal, and therefore was fairly well known to the proprietor. Why, then, was my degree obtained from the University of Heidelberg omitted in this list of medical practitioners? Can Mr. Bruck have fancied that the Senate had removed my name from the list of graduates of that ancient and world-renowned seat of learning? This can scarcely be probable!

Then, it follows, the omission has resulted either through some gross error of the editor or on purpose, not my fault in any way.

I have the honour to remain, sir,
Your obedient servant,
F. MILFORD.

3 Clarendon Terrace,
Sydney, April 20, 1893.

[We append the heading of the printed circular sent by the Editor of the "Medical Directory" to every medical practitioner, and also the conditions contained in it with regard to the insertion of past appointments and other personal information, such as honorary titles, etc. It is necessary also to point out to our correspondent that in addition to his having neglected to return the circular with the information asked for by the publisher of the "Medical Directory," we are informed he omitted to comply with another necessary provision by not remitting the cash required for the insertion of past appointments, which, estimated by those we published at his request in the April number of this journal, would have amounted to twenty-eight shillings. This was a condition strictly enforced in the cases of all other practitioners, and Dr. Milford has not given, nor do we know of any reason, why a difference should have been made with regard to himself.—ED. *A.M.G.*]

"This circular should be filled up and returned to the Editor and Publisher, Mr. L. Bruck, 13 Castlereagh-street, Sydney, *who will not be responsible for any omissions and errors in the names and qualifications of those gentlemen who do not return this circular filled up.*

"Past medical appointments, and other information not referred to above, can only be inserted if paid for at the rate of three pence for each word or abbreviation, owing to the immense amount of labour and great expenditure involved in the production of this work of reference, which is almost indispensable to practitioners in these colonies. The amount thus due must be enclosed on returning this circular, as otherwise past appointments, &c., will not be inserted. Postage stamps will be accepted in payment. Those gentlemen who now pay for a copy of the book will be entitled to the insertion, free of charge, of eight words or abbreviations of their 'past' appointments."

MEDICAL ADVERTISING.

(*To the Editor of The Australasian Medical Gazette.*)

SIR,—In a recent issue Dr. J. B. Nash, of Wallsend, took the Special Correspondent of *The Lancet* to task for the inconsistency of following, in 1893, a custom which in 1891 he had condemned.

Any of your readers who are interested in this matter have but to turn to *The Lancet* of November 28, 1891, to see that the correspondence which has so irritated Dr. Nash contains only simple facts and obvious comments.

A Sydney practitioner, holding the diplomas of M.D. Edin., F.R.C.S. Edin., M.R.C.S. Eng., had just had his diploma of M.R.C.S. Eng. cancelled by the Council of that Royal College, and it was pointed out that in no way was his professional status here changed, seeing that the Edinburgh authorities held a different standard of medical ethics from that used by the English colleges, and the Scotch authorities took no action with regard to his diplomas of M.D. Edin. and F.R.C.S. Edin. The article then went on to show that the Australian standards of professional honour and etiquette were, in the matter of advertising, much lower than the English standards, and it was suggested that the Royal Colleges of London and England, when next they met to try an Australian diplomate for advertising or other professional misconduct, should measure his offence by the Australian and not by the English standard.

What Dr. Nash complains of as "an attack on the profession," was a mere statement of fact by a close observer. What in reality caused Dr. Nash so much anxious thought, and finally induced him to write to the papers, was the fact that in *The Lancet* article complained of was incorporated—anonymously of course—an advertisement of his own as an example of the indirect method of advertising in vogue in this district.

During the last two years I have collected specimens of the direct and of indirect advertisements—of the puff direct and of the puff oblique—of almost every medical man in the Newcastle District, not even excepting Dr. L. J. Beeston, who, as President of the Newcastle Medical Society, recently expatiated on these evils. I could quote a score of examples to show that in making the announcement I did, I was following the custom of the district. I will quote only one example, and that a recent one. It is the advertisement of a young practitioner who recently gave up the boycotted Friendly Societies' Dispensary here to start in Sydney as an eye specialist. Large printed cards of this advertisement were, and are still hung up in the waiting rooms of the Newcastle general practitioners, and the following announcement appeared in the *Newcastle Herald* for three months or more :—

NOTICE.

Dr. GATEWARD DAVIS,

CONSULTING EYE SURGEON,

(Late of Beaumont-street, Hamilton)

Will henceforth see all (and only) Eye cases at his

CONSULTING ROOMS,

3 HYDE PARK TERRACE, 173 LIVERPOOL-STREET, SYDNEY.

Consulting Hours: 10 a.m. to 5 p.m. daily, excepting Thursdays.

FOR the convenience of those patients living in Newcastle and the Northern District he will EVERY THURSDAY see all Eye cases at Dr. Harris' Consulting Rooms, Watt-street, Newcastle, from 9 a.m. to 8 p.m.

I may say that Dr. Harris is the *doyen* of the medical profession in Newcastle, and was one of the audience to whom Dr. Beeston recently lectured on the evils of medical advertising. I find no fault with Dr. Beeston for making medical advertising his theme; but until the members of the Newcastle Medical Society issue a self-denying ordinance against the custom, mere words will avail little. This Newcastle custom, I am told, has grown up imperceptibly—no one appears to know when it was started—but there can be no question that it is bad, and not in accordance with one's high professional ideals. As far as I am concerned it has been merely a matter of "doing in Rome what the Romans do," which, in many of the affairs of life, is a very safe rule of conduct.

In conclusion, I may say that I never fully realized the force of the apostolic dictum that "evil communications corrupt good morals" until after two years' residence in Newcastle I found myself adopting the pernicious customs that obtain in this district.

I am, Sir, yours, &c.,
H. MARTIN DOYLE,
M.R.C.S. Eng., L.R.C.P. Lond., &c.
4 Bolton-street, Newcastle.

[The point in this case is that though, as correspondent of *The Lancet*, Dr. Doyle trenchantly condemned medical advertising in any form, within a few months he sinned similarly himself.—ED. *A.M.G.*]

WANTED.—*The Australasian Medical Gazette*:—Vol. II., Nos. 2, 3, 6, 8, 12; Vol. VII., No. 10; Vol. VIII., Nos. 6, 7, 8; Vol. XI., 3. Liberal price given. Angus and Robertson, 89 Castlereagh-street, Sydney.

THE INSANE POPULATION OF NEW SOUTH WALES IN 1892.

◆

Dr. F. Norton Manning, Inspector-General of the Insane in New South Wales, has sent us his report on the state and condition of the hospitals and other institutions for the insane for the year 1892. The report shows that on December 31, 1892, the number of persons officially registered was 3,312 (2,031 males and 1,281 females), while the number on December 31, 1891, was 3,134 (1,912 males and 1,222 females), so that the increase during the year was 178 (119 males and 59 females). This increase is 50 beyond the increase for any previous year, and 87 in excess of the average for the previous 10 years. The proportion of insane to population in the colony has risen from 1 in 371, or 2·69 per thousand at the close of 1891, to 1 in 361, or 2·77 per thousand at the close of 1892, but is still below the proportion in the United Kingdom.

During the year 261 recovered, 31 were relieved, 5 escaped, and 191 died. The total number of patients under care during the year was 3,966 (2,453 males and 1,513 females): and of these 6 were from 1 to 5 years of age, 27 from 5 to 10 years, 48 from 10 to 15 years, 116 from 15 to 20 years, 587 from 20 to 30 years, 944 from 30 to 40 years, 968 from 40 to 50 years, 747 from 50 to 60 years, 368 from 60 to 70 years, 141 from 70 to 80 years, and 24 were between 80 and 90 years old; 2,223 (1,615 males and 608 females) were single, 1,170 (518 males and 652 females) married, and 285 (116 males and 169 females) were widowed; 1,278 were natives of New South Wales, 200 came from the other colonies, 918 from England, 205 from Scotland, 973 from Ireland, 87 from Germany, 75 from China, and 22 from France. The natives of New South Wales and of other British colonies, whilst they represent very considerably more than two-thirds of the general population, contribute very much less than half of the insane; whilst those born in Great Britain and Ireland, France, Germany and other countries, who constitute much less than one-third of the population, contribute very much more than half of the insane. The natives of Ireland, who are only one-fifteenth of the total population, contribute very nearly one-third of the insane; whilst the natives of foreign nationality (421 in number) constitute upwards of one-seventh of the asylum population, although the proportion of foreigners to the general population was less than one-twenty-seventh.

The admissions have been 666—the largest number yet admitted in any one year—and give a ratio of "occurring insanity" in proportion to the general population of 1 in 1,797; the number admitted for the first time was 585, and 81 had some former time been under treatment in one of the hospitals in this colony.

The number of deaths was 191, and calculated on the average number resident gives a percentage of 6·06, the death rate for males being 6·26, and that for females 5·72; the chief causes of death were disease of the brain, general paralysis and epilepsy. The deaths from pulmonary consumption and from other diseases of the lungs numbered 30, and diseases of the heart and blood vessels were the cause in 20 cases. In 27 cases death was due to general debility and old age. There was no death from influenza, typhoid fever, or other infectious ailment.

The daily average number resident was 3,151.

The total expenditure was £102,519 14s. 6d.; the total annual cost per patient, £31 1s. 9½d., or deducting collections, £26 9s. 0¼d.

REVIEWS.

◆

The Cardinal Symptoms of Urinary Disease. By E. Hurry Fenwick, F.R.C.S. Eng., Surgeon to the London Hospital, Surgeon to St. Peter's Hospital for Stone and other Urinary Diseases, &c. London: J. and A. Churchill, 11 New Burlington-street, 1893.

This is a remarkable, instructive and interesting book—remarkable, because it begins the new era of urinary surgery; instructive, because there is so much new information to be gathered; and lastly, interesting, because of the careful selection of clinical cases from among some 2,000 histories of special importance. Among his Austral brethren Mr. Hurry Fenwick's name is not unfamiliar. His works on the electric illumination of the bladder have been the heralds of the new surgery to English readers. Sir Henry Thompson, writing a few years ago, said: "There are few occasions, I confess, which for me have excited a more lively interest than the moment at which my finger enters a bladder, the condition of which has been a theme of keen inquiry and speculation for some months, or even for years before." Now all is changed. The most obscure is seen; the tactus gives way to the visus eruditus. Mr. Hurry Fenwick hopes, by careful accounts of the cardinal symptoms of urinary disease, to make a practitioner independent of the cystoscope. It is a laudable but hopeless effort. We think the perusal of a book like this furnishes the most powerful incentive to go and see likewise. The symptomatology of urinary disease has new meaning through the researches of the author, and to those less skilled than himself, or to those less happily circumstanced, this account of the cardinal symptoms of urinary disease will be little else than a revelation. One of the best features of the book is the praiseworthy frankness of the author in putting before us his own diagnosis before and after the use of the cystoscope. He also shows how other great metropolitan surgeons have made mistakes and the wildest guesses. We confidently commend the section on abnormal urination to the general practitioner as full of sound sense and excellent ways. Mr. Fenwick says that successful instrumentation depends not so much now-a-days on the practitioner, but upon the instrument. There is no doubt of it. General practitioners, as a rule, never have sufficient variety of instruments. We have read this book through carefully, and are convinced of its practical value. We specially recommend it to our country readers, who must be self-reliant, and to those who have to do with aggravated cases of urinary disease in hospitals and public institutions.

A Manual of the Practice of Medicine. Prepared especially for students by A. A. Stevens, M.A., M.D., Instructor of Physical Diagnosis in the University of Pennsylvania. Philadelphia: W. B. Saunders, 913 Walnut-street, 1893.

There is a plethora of this kind of book at the present day. Any earnest student who gets as much information as is to be had in these pages, longs for more. We fail to see the use or value of such condensed writing, except for the purpose of cramming for an examination.

Symptoms and Special Signs. By William Ewart, M.D. Cantab.; F.R.C.P.; Physician to St. George's Hospital; Lecturer and Teacher of Practical Medicine to the Medical School. London: Baillière, Tindall and Cox, London, Paris and Madrid, 1892.

This excellent formulary of physical signs for clinical note-taking will prove useful to students of medicine. This systematic note-taking, which was begun by Hughes Bennett, of Edinburgh, and followed by Sanders and hosts of others, is one of the very best exercises that can be engaged in by the student. His entire professional career may be said to rest upon the foundations built upon clinical experiences. Rapid, and too often faulty, diagnoses would not be the order of the day were this elaborate method put into practice.

Essentials of Diagnosis. By S. Solis-Cohen, M.D., and Augustus A. Eshner, M.D. Philadelphia: W. B. Saunders, 913 Walnut-street, 1892.

At the outset we say that we demur to this method of teaching the practice of medicine. No doubt in these days of attempted omniscience it is highly necessary to avoid diffusion, and to present salient facts in concise and systematic form. On this score the work before us claims our attention. There is certainly a mass of facts well marshalled. The book will prove of use to students who have otherwise read and observed closely, and who desire to examine themselves or to be questioned by others. The teaching is sound, and the summary as intelligible as the small compass at command permits. The digest will prove easy or difficult in proportion to the student's reading elsewhere, and practical experience at the bedside. Like most American books, the work is well printed, and has some useful illustrative plates.

THE MONTH.

NEW SOUTH WALES.

Scarlet fever is very prevalent in Sydney and suburbs.

The Thomas Walker Convalescent Hospital at Concord, near Sydney, will be ready early in August for the reception of patients.

Drs. G. T. Hankins and **G. E. Twynam**, Honorary Surgeons of the Prince Alfred Hospital, have been appointed Lecturers on Clinical Surgery at the Sydney University at a salary of £50 per annum for a period of six months, on the condition that their office of lecturer determines should either at any time cease to be an ordinary Honorary Surgeon at the hospital.

Dr. Carl Fischer, formerly of Macquarie-street, Sydney, died at Chicago, U.S.A., on June 22, from gangrene.

Dr. T. D. Bertram has removed from Bingara to Coonamble.

Dr. R. Broom, late of Muldiva (Q.), has commenced practice at Cudal, 221 miles W. of Sydney.

Dr. C. Fetherstonhaugh, late of West Melbourne, has commenced practice at Narrandera.

Dr. T. J. MacLoughlin, late of Glen Innes, has commenced practice at Nicholson-street, Burwood, near Sydney.

Dr. C. B. Pym, late of Penrith, has settled at Braidwood.

Dr. G. E. Rennie, of Sydney, has been elected a Fellow of the Neurological Society of London.

Dr. G. S. Samuelson has removed from Gundagai to Kangaroo Valley.

Dr. C. Swanston will shortly retire from his position of Additional Permanent Medical Officer of the N.S.W. Military Forces.

Dr. T. E. Smyth, of Campbelltown, has been appointed Honorary Surgeon-Lieutenant to the Mounted Infantry Regiment.

NEW ZEALAND.

Sydney Maxwell, engaged in the Matura Paper Mills, has been committed for trial on a charge of criminal libel on Dr. Truby King, Medical Superintendent of the Seacliff Lunatic Asylum, Dunedin. The alleged libel was contained in a letter published in the *Globe*, an evening newspaper published in Dunedin, in which Dr. King was charged with neglecting the patients under his charge in various ways. The neglect, it was alleged, was mainly in the case of those who had no friends to call and see them. Maxwell had at one time been a warder in the asylum, and signed himself as an ex-attendant.

Mr. L'Estrange Isdell, L. *et* L. Mid. K.Q.C.P. Irel. 1880, L.R.C.S.I. 1879, who had been practising at Marton for the last five years, died last month of consumption after a lingering illness.

Dr. J. P. Baker, late of Havelock, has succeeded to the practice of Dr. MacCarthy at Wellington.

Dr. C. E. de L. MacCarthy has removed from Wellington to Marton.

Dr. William Mill, of Totara Hospital, Ross, has been appointed Assistant Medical Officer of the Wellington Lunatic Asylum.

Dr. James Torrance, a graduate of the New Zealand University, has settled at Bluff, the southernmost port of the colony.

QUEENSLAND.

We much regret to have to announce the death of Dr. John Henry Griffin, F.R.C.S.I., L.R.C.P. Lond., M.D. Brux., Dipl. Publ. Health R.C.I. 1889, who for the last four years had been practising at Brisbane. The deceased gentleman, as a member of the Hunt Club, was following the hounds at Eight Mile Plains on July 1, when his horse, in endeavouring to clear a fence, fell upon the rider. Dr. Griffin was terribly crushed, and, without again speaking, died in a few minutes. He was a prominent figure in sporting and athletic circles.

The Palmer River District Hospital at Maytown will be closed this month, owing to the funds being locked up in the Queensland National Bank.

Dr. A. E. Salter, of Thursday Island, has been appointed a Surgeon on the medical staff of the Queensland Defence Force.

SOUTH AUSTRALIA.

Dr. E. C. Stirling, C.M.G., of Adelaide, has been elected a Fellow of the Royal Society in London (F.R.S.)

Dr. W. T. Angove, of Teatree Gully, has been made a Justice of the Peace for the colony.

VICTORIA.

The newly-established St. Vincent's Hospital in Melbourne, situated at the corner of Regent-street and Victoria-parade, has just been opened for the reception of patients. The hospital is the property of the Sisters of Mercy, by whom it will be managed without any assistance from the Government grant. It is fully equipped with medical and surgical wards, and with separate departments for skin diseases, complaints of the eye, ear, nose and throat, &c., and at the outset it will contain 32 beds. The Sisters of Mercy will do all the work of nursing, and the public will only be asked to contribute the funds for maintenance. Attached to the hospital is a hospice for the dying, where persons in a moribund condition will be taken in, and the end made as easy as possible for them.

MEASLES were prevalent during the last month throughout the northern suburbs of Melbourne to such an extent that it was found necessary to close all the State schools in Carlton for a period of 10 days. In Fitzroy it is estimated that there were not less than 1,500 children at present attacked by that disease. In Collingwood there were only two State schools open, the others being closed owing to the prevalence of the epidemic. It is stated that there were 2,000 cases reported to the authorities in Collingwood.

PAUL DUFLOT, an unregistered practitioner, was committed for trial at the Warrnambool Police Court for manslaughter in connection with the death of a woman, whom he is alleged to have treated for chronic dyspepsia.

MR. NORMAN GOW, L.R.C.S. Ed. 1840, a colonist of 32 years, died at Guildford on the 23rd May.

A CABLEGRAM has been received by Dr. J. P. Ryan, of Melbourne, conveying the intelligence of the death, at sea, on June 28, of Dr. George Graham, M.D. Melb. 1862, M.R.C.S. Eng. 1851, who for the last 35 years had practised his profession at Richmond. He left Melbourne on May 11, in the "Thermopylæ," on a visit to the old country, with the intention of being present at the International Medical Congress. The deceased gentleman was 64 years of age.

DR. WILLIAM HAIG, M.D. Maryland, U.S.A. 1848, J.P., a resident of South Melbourne for over 30 years, died suddenly on the 28th June, aged 70 years. The deceased gentleman was a retired Surgeon-Major of the Victorian Military Forces, and at one time held the position of Honorary Physician to the Alfred Hospital, Melbourne.

DR. P. D. BRAY has removed from Corryong to Carisbrook, 108 miles N.W. of Melbourne.

DR. P. GUINAND, late of Renmark (S.A.), has joined Dr. Whitcombe at Ballarat.

DR. MARGARET WHYTE, late of the Melbourne Women's Hospital, has entered upon private practice at 32 Collins-street, Melbourne.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

◆

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Merrillees, James Frederick, M.B. *et* B.S. Melb. 1887.
Green, Terence Albert, M.B. *et* Ch. M. Sydney 1893.
Foster, Alfred, L.R.C.P. Lond. 1889; M.R.C.S. Eng. 1889.

For Additional Registration:—

Newell, Benjamin Armitage, M. Ch. Sydney 1892.

NEW ZEALAND.

Harvey, Arthur George, M.B. *et* B.S. Camb. M.R.C.S. Eng., L.R.C.P. Lond.
Teare, John, M.B. *et* B.S. Vict. Univ. Manchester.

SOUTH AUSTRALIA.

Nicholls, George Gray, M.B. Melb. 1891.

VICTORIA.

Smith, George Henry Walton, L. *et* L. Mid. R.C.P. Edin. 1892; L.F.P.S. Glas. 1892.

MEDICAL APPOINTMENTS.

◆

Anderson, Thomas Cochrane, M.B. *et* Ch. M. Aberd., to be Health Officer for Essendon, Vic.

Elliot, Frederick John, M.R.C.S.E., to be a Public Vaccinator in South Australia.

Harkness, Edward, L.R.C.P.S. Ed., to be Health Officer for Rosedale shire, Vic.

Macfarlane, Archibald Martin, M.B. *et* Ch. B. Melb., to be a Public Vaccinator in South Australia.

Marsack, Arthur Ernest, L.R.C.P. *et* R.C.S. Ed., to be Public Vaccinator for the district of Whangarei, N.Z.

Nash, Andrew William, M.B. *et* Ch. M. Ed., to be Government Vaccinator for the district of Robertson, N.S.W.

Ray, Henry, M.D. *et* Ch. M. Glas., to be Public Vaccinator for South Carlton, Vic.

Schlink, Rudolph Herbert, M.D., to be Health Officer for Wodonga shire, Vic.

Torrance, James, M.B. *et* B.S. Univ. N.Z., to be Health Officer for the Port of Bluff, N.Z.

Watkins, Frank Augustus, L.R.C.P. Lond., M.R.C.S.E., to be Health Officer for the districts of Smythesdale, Browns, and Scarsdale, Vic.

Webster, George Alexander, M.B. Camb., M.R.C.S.E., to be Health Officer for Caulfield shire, Vic.

BIRTHS, MARRIAGES, AND DEATHS.

◆

*** The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

ADAM.—On the 9th May, at Beaufort, Vic., the wife of Basil J. Adam, M.B., of a son.

BAGE.—On the 14th June, at South Yarra, Melbourne, the wife of Charles Bage, M.A., M.D., of a daughter.

CUSCADEN.—On the 30th May, at Port Melbourne, the wife of Dr. Geo. Cuscaden, of a daughter.

FOX.—On the 2nd June, at Bairnsdale, Vic., the wife of Dr. J. Raymond Fox, of a son.

HENRY.—On June 5, at Warialda, N.S.W., the wife of T. J. Henry, Government Medical Officer, of a daughter.

JOHNSON.—On the 20th May, at Avoca, Vic., the wife of William Johnson, L.R.C.S.E., of a son.

KENNEDY.—On the 7th June, at Albury, N.S.W., the wife of P. Kennedy, L.R.C.S., of a son.

McALLISTER.—June 30, at Stanmore, Sydney, the wife of J. F. McAllister, M.D., of a son.

SCOTT.—June 6, at Scone, N.S.W., the wife of H. J. H. Scott, M.R.C.S. Eng., &c., of a son.

SMITH.—June 11, at Burrowa, N.S.W., the wife of Ventry Smith, L.R.C.S.I., L.K.Q.C.P.I., of a daughter.

SOMERS.—On the 8th June, at Mornington, Vic., the wife of J. L. Edgeworth Somers, L.R.C.S.I., of a son.

MARRIAGES.

DIAMOND—WALKER.—On the 27th May, by the Rev. James Gibson, William Diamond, M.B., C.M., Omeo, Vic., to Mary Kerr, eldest daughter of William Walker, M.D., Shawlands, Glasgow.

LINES—RYAN.—On the 6th June, at All Saints', Northcote, David H. E. Lines, M.B. *et* Ch. B., Woodend, Vic., to Cecilia Nora, youngest daughter of the late Wohyche W. Ryan, of Launceston, Tasmania.

MOORE—KITE.—June 24, at Holy Trinity Church, Kelso, J. Brooke Moore, surgeon, of Bathurst, N.S.W., to Lilian Mary, eldest daughter of William Kite, Kelso.

FIRST-CLASS PRACTICES in good country towns wanted by L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of New South Wales and Queensland on application to L. Bruck, Medical Agent, Sydney.

WE have received from Mr. Emile Doublet, of Sydney, as Agent for Australia, a sample of Coutrexéville Water, a natural mineral water, which is said to be specially good for the treatment of urinary complaints, gravel, catarrh of the bladder, gout, affections of the womb, nephritic and hepatic colics, &c. &c.

REPORTED MORTALITY FOR THE MONTH OF MAY, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. Wales.																
Sydney	111,244	327	140	140	...	2	3	...	2	1	8	17	7	7	1	3
Suburbs	275,615	1,001	311	311	...	11	14	...	9	12	25	15	24	9	1	5
New Zealand.																
Auckland	31,268	78	26	13	9	...	1	...	...	...	2	1	3	...	...	...
Christchurch	16,704	28	9	3	...	...	...	...	...	...	1	...	...	1	...	...
Dunedin	23,302	40	20	9	4	...	..	1	...	1	1	...	2	2	...	...
Wellington	33,786	93	23	6	...	...	1	...	1	1	2	2	1	2	...	...
Queensland.																
Brisbane	56,075	202	102	52	...	...	6	...	4	11	11	17	7	4	...	5
Suburbs	37,582	123	51	28												
South Australia	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Adelaide	38,240	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Tasmania.																
Hobart	34,635	95	68	13	...	...	3	1	2	1	4	3	3	1	...	...
Launceston	22,305	66	25	7	...	...	...	...	1	...	2	1	3	1	1	1
Country Districts	96,839	288	71	...	...	...	1	1	...	2	3	...	...	...	...	...
Victoria.																
Melbourne	71,881	117	65	172	2	1	2	3	11	8	56	46	38	22	3	8
Suburbs	417,304	1,252	453													
Western Australia*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

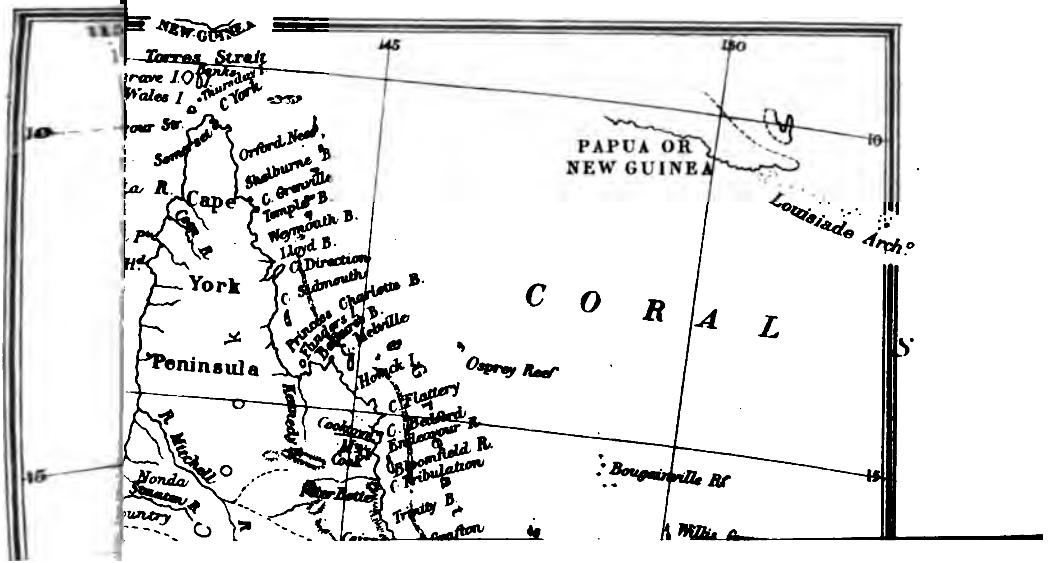
* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR MAY, 1893.

Stations.	Thermometer.				Mean Height of Barometer.	Rain.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	70·	59·4	48·5	...	3·73	23	86	...
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	84·5	63·2	45·5	30·086	2·480	11	75	...
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	75·	51·4	26·8	...	1·04	9	83	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	67·	48·9	34·	...	2·45	16	79	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	72·	51·7	37·	29·880	0·35	14	79	...
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	69·	50·2	31·5	29·921	5·16	11	92	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	72·5	56·3	35·9	29·883	3·995	18	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	...	..	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	70·2	58·3	43·7	30·097	1·35	15	77	S.W.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	65·7	55·8	41·	...	3·164	16	76	...

S IN AUSTRALIA.



Syd	; Long. 151° 11′ 49″ E.	...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
W	″ S.; Long. 174° 47′ 25″ E.	...	65·7	55·8	41·	...	3·164	16	76	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

ON HÆMATURIA IN SNAKEBITE POISONING.

By A. Mueller, M.D.,
Yackandandah, Victoria.

It is with the view of drawing the attention of Australian practitioners to the above insidious complication, which has hitherto escaped their observation, and inviting their kind co-operation in collecting further data as to its relative frequency that I bring the subject of snakebite once more under their notice. Within the last few months three cases of hæmaturia after tiger snakebite have been brought under my notice, in the first one of which, published by Dr. Skinner and myself in the March number of this journal, the microscopical examination of the scanty, dark brown urine containing *blood casts, large masses* of cloudy granular *epithelial casts*, and *debris*, and numerous shrunken red corpuscles placed a serious affection of the kidneys beyond doubt. Feoktistow also observed gross anatomical changes in the kidneys of poisoned cats, and further found their urine to produce in small quantities violent toxic effects when injected subcutaneously. We may therefore assume that the snake poison is eliminated through the kidneys undecomposed, or at least but little changed in its effects.

It appears strange that so important a symptom as hæmaturia has not been previously observed and recorded here, and only within the last few months attracted my attention; but the reasons are obvious. In the first place the busy practitioner, when attending a case of snakebite, which usually ends within a short time in recovery or death, has his attention so much rivetted by the more patent and alarming symptoms of paresis and paralysis that the conditions of the kidneys and urine are apt to be overlooked, in all acute cases at least, which form by far the greater number. Another reason that caused us to overlook the urine was that we did not expect to find anything in it, especially not blood, since the hæmorrhagic process that marks the viperine poisoning in India is generally absent in poisoning by our colubrines, and only indicated exceptionally by blood vomiting.

The importance, therefore, of bloody urine in persons bitten by tiger snakes cannot be overrated. If it is apt to occur at an early stage, as one of the cases I shall submit undoubtedly proves, and if the process by which the blood is forced through the renal capillaries is the the same as in other organs, namely, diapedesis causing both blood and epithelial casts to appear in the scanty secretion of the kidneys, our patients are, in any case of tiger snakebite, in imminent danger of having these important organs blocked, and the principal, if not the only, door shut by which the insidious enemy can be ejected. Some of it may be thrown out by vomiting and purging, but to initiate either or both in a person collapsing from diminished motor-nerve force does not recommend itself as rational treatment. It is equally hopeless to produce an efficient diaphoresis. When the skin is cold and blanched, and we cannot force the blood to the surface because it is accumulating in the abdomen, pilocarpine injections, which have been suggested, are not likely to be of any service. Our only chance of preventing the kidneys from being destroyed is to prevent the dilatation of their capillaries, which gives rise to diapedesis. Once the latter has taken place, the tubes are filled with blood, and their epithelium is largely cast off, all remedial measures would appear to be futile.

In the early and vigorous use of strychnine injections, keeping the renal arterioles and capillaries contracted and the circulation open, we have the only means of coping successfully with the conditions that bring about hæmaturia in snakebite. It will be seen from the account of the two cases I shall submit, that strychnia was not administered at all in quantity sufficient to prevent the mischief. In the first one, in fact, it was not used at all until hæmaturia had set in, the symptoms being so undecided that the young practitioner, who, unfortunately, had never seen a case of snakebite before, did not feel justified to inject strychnia until his attention was called to the blood in the urine, and shortly afterwards coma set in. Then he injected strychnia in very small doses only. In the second case only one 10♏ injection was used. Both ended fatally.

The first case is that of a girl of nine years, bitten by a large tiger snake on the leg whilst going to school in the morning. She was immediately conveyed to the nearest medical man, distant 20 miles; but travelling in a dray over rough mountain roads, did not reach the latter until past midday, and then showed so little signs of poisoning, being quite conscious and able to walk, that all treatment was omitted pending more decided symptoms; those she showed—cold and pale skin, quick pulse and general lassitude—being explainable as mere effects of fright. She was kept under close observation at the residence of the gentleman—a very conscientious and painstaking young practitioner. During the afternoon she voided *a pint of almost pure blood from the bladder*, but scarcely any urine, though frequent mildly stimulating drinks were given to her. At 4 p.m. she suddenly became very drowsy, and rapidly sank into coma. Very small doses of liq. strychniæ were then injected at half-hour intervals, which somewhat roused her, but she quickly became unconscious again after each injection, and when slight twitchings of the platysma took place, the further use of strychnia was thought to be risky, and the child died in a comatose state before morning.

This case, like that of Miss D., shows the irregular and insidious action of snake poison once more to perfection. It first concentrated on the vaso-motor centres, leaving all the other ones comparatively free for more than seven hours and then suddenly invaded the cortical centres of the hemispheres, but not until it had effectually blocked the kidneys and rendered escape of its victim, even under the most energetic treatment, all but hopeless. If the idea of Professor Virchow, that every blood corpuscle has a consciousness of its own and acts with a certain degree of intelligence is the correct one, we might almost feel tempted to grant the same faculties, cunning and malicious in the highest degree, to the subtle ophidian venom.

The second case of undoubted hæmaturia following tiger snakebite, occurred at Echuca as late as the 1st of May last, the victim being Francis Stanton, alias Professor Hullar, the snake charmer, aged 41 years. He was bitten on the right hand during one of his public performances, by a large tiger snake, nearly five feet long, which he had caught on the previous day. Dr. Warren has kindly furnished me with notes of the case, of which I give, for brevity's sake, abstracts. Immediately after being bitten Stanton took his own remedies, to wit, a large dose of calomel and some ammonia in brandy, which he alleged to have frequently cured him. He then sent his assistant in the snake charming business for a cab to take him to his hotel, but before the latter returned, and hardly a quarter of an hour after the bite, he suddenly collapsed and fell down unconscious, and by the bystanders supposed to be dead. They carried him at once to Dr. Eakins' surgery, where Dr. Warren, assistant to the latter, at once incised the punctures and injected 10 minims of liq. strychniæ P.B., the professor, who had come round from the swoon, all the time objecting to the treatment. He revived sufficiently to be able to walk, and Dr. Eakins having arrived, he was allowed to walk to his hotel, a distance of about 200 yards.

He was not again heard of until the following day (Tuesday), when he came to the surgery to have his hand dressed, which was very much swollen. Dr. Warren writes: "He next visited the surgery about 11 a.m. on Wednesday, and appeared so bad that I ordered his removal to the hospital. *He was passing bloody urine*, was cold and confused, and had been drinking both before and after the bite. Dr. Eakins saw him at the hospital shortly after his admission, when he ordered hot turpentine stoops over the loins, one ounce of brandy in Liebig's beef tea every three hours, and gr.x doses of chloral and bromide every four hours, as he was very restless. Large(?) *quantities of bloody urine* were being passed, as well as black tarry motions."

When last seen by Dr. Eakins at 11 p.m. he seemed much improved, but still had a very anxious look about him. Dr. Eakins ordered the matron to look after the patient herself, and to send for him at once on any change occurring. The change came at 4.30 a.m., and on Dr. Eakins' arrival the patient had just died, complaining of *intense pain and constriction across the chest, with a fearful sense of smothering and oppression.*

In this interesting case we see the "harmless" snake poison killing a man in the prime of life after lingering 56½ hours in his system, principally invading the vaso-motor and finally giving the *coup de grace* by sudden paralysis of the respiratory centres. There is only one point in Dr. Warren's account that does not square with the observations in the other two cases of hæmaturia, namely, the alleged large quantities of bloody urine. Large quantities of blood in the urine would be more feasible, for when the kidneys bleed from any cause their secretion is generally impeded. Unfortunately for the cause of science, an autopsy in this case does not appear to have been made. Three fatal cases of hæmaturia within a few months justify the suspicion that this insidious complication is much more frequent in snakebite than we have hitherto supposed, and that it renders the prognosis in any case very ominous. We can only prevent, but not cure it, and the only chance we have of preventing it is the early and vigorous use of the only antidote we possess. The three cases show that we have much to observe yet on the subject of snake poison, and that only a free and intelligent interchange of observations on the part of all, supplementing the limited opportunities of individual practitioners, can advance our knowledge of this intricate question and keep us in the lead we have now taken in unravelling its many knotty points.

In the little work* I have lately published, at considerable personal expense, the key is given for an intelligent interpretation of the varying and conflicting symptoms of snakebite poisoning, and unless science is a mere chimera, its basis is scientifically sound and impregnable, whatever its deficiencies otherwise may be. I therefore venture to express the hope that ere long it may be found in the library of every country practitioner, and that even our learned colleagues in the towns, more especially the professors and teachers at our universities, will condescend to read the book, if for no other purpose than that of finding a flaw or two in the conclusions set forth in it on a subject which has hitherto been nearly a *terra incognita* to us. If my conclusions are faulty and erroneous they surely require refuting, if not I may justly claim an open acknowledgment of their correctness in the place of that mere silent tolerance hitherto accorded to them. My chief aim in writing the book has been to convince the country practitioners that if they use the antidote they must do so fearlessly until they see the first unmistakeable signs of its own physiological action. Better not use the antidote at all than use it timidly, for the nerve centres when only partially roused succumb more readily to the snake poison than if they had been left alone. The early advent of this insidious hæmaturia, even in the absence of most of the usual symptoms of poisoning, is specially calling for an early and free use of the antidote, *from which no possible harm can result.*

THE FLAP-SPLITTING OPERATION FOR RUPTURE OF THE PERINEUM INTO THE BOWEL.

By F. E. Hare, M.D., M.R.C.S., Resident Medical Officer Charters Towers District Hospital, North Queensland.

I avoid the term "Tait's Operation" because this has been described by so many operators, and so differently, that much confusion exists in my mind as to his exact mode of procedure. The operation here described I have performed five times during the last two years in this hospital: four times for rupture, the result of parturition (in these I have no hesitation in saying the result has been absolutely perfect); once after the division of a recto-vaginal fistula, on which a further slight operation will be necessary.

Case I.—Mrs. M. W., *æt.* 25, admitted August 28, 1891. Rupture occurred about 8 months previously. It extended through the sphincter and about one-third of an inch up the bowel. Some difficulty was experienced during the operation in adjusting the parts, owing to the fact that the tear was lateral. Four deep sutures; two remained buried. Discharged, cured, October 8, 1891. She is now seven months pregnant, and the fate of the new perineum will be of interest.*

Case II.—Mrs. M. B., *æt.* 36 years, admitted December 12, 1891. This case was under my care in the Brisbane Hospital about five years ago, suffering from a specific stricture in the rectum. Since that time a recto-vaginal fistula had formed below the stricture, and she had been operated on unsuccessfully several times in another hospital. On admission it was determined to dilate up the stricture first, then divide the fistula completely through the perineum, and after dissecting out the granulation tissue, attempt union by suture. At the operation, however, an abscess cavity in connection with the fistula was discovered. This prevented the possibility of primary union, so the perineum was simply divided and allowed to scar over as after rupture during childbirth. Subsequently perinæorrhaphy by flap-splitting was performed, but owing to the state of the tissues the posterior stitches gave way—this left a rather enlarged anus and an absence of complete control when the motions are loose. A very slight subsequent operation will set this right.

Case III.—Mrs. F., *æt.* 40, married 16 years, four children. Ten years ago, during her last confinement, complete rupture of the perineum into the bowel occurred. Her medical attendant offered to operate and cure her, but explained that the parts would be certain to break down when she had connection; under these circumstances she refused. On examination the tear was found to extend one inch up the rectum. The operation presented no difficulty. Complete primary union occurred; of the five deep sutures used only two came away. Recovery was perfect in three weeks.

Case IV.—Mrs. B., *æt.* 30, admitted January 2, 1893, suffering from a slight feverish attack. She casually mentioned that she had suffered some years from a tear that occurred during childbirth. On examination she was found to have complete rupture, extending about one inch up the bowel.

The operation was simple. Complete primary union took place, and she was discharged on February 6, 1893.

Case V.—Mrs. F., *æt.* 40, admitted April 25, 1893. One child eight years ago. Delivery was instrumental. On examination she was found to have a complication of disorders.

---

* On Snake Poison: Its Action and its Antidote, by A. Mueller, M.D. Sydney: L. Bruck (5s.)

* Safely delivered on July 27; no sign of rupture.

(1) A large fibroid polypus, size of pigeon's egg, in process of delivery through the os internum. This had caused for some months constant metrorrhagia.

(2) A fibroid polypus rather larger than the above, growing from the nates.

(3) A complete rupture of the perineum, extending at least one and a-half inches up the rectum.

On April 28 chloroform was given, and both polypi removed. On May 5 perinæorrhaphy was performed. The flaps cut were the largest I have seen, the septum measuring about three inches. Six sutures were used, of which three remained buried. Stitch-hole abscesses occurred round the posterior and anterior stitches, but the result is perfect notwithstanding. She is now completely well, and intends going home to-morrow.

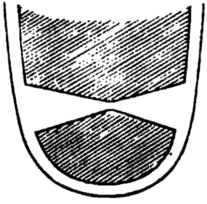
To understand the *rationale* of the operation, it is necessary to remember—

(1) That the perineum is in vertical antero-posterior section, a triangular body with superior apex.

(2) That in complete rupture the base of this triangle is always completely torn across, and that the rent may extend any distance towards the apex.

(3) That the condition of the torn parts before operation can therefore best be represented by the following diagram (Fig. 1) in which the septum consists of two triangles joined by their apices.

FIG I



(4) That the vertical extent of the tear determines *(a)* the width of the septum from base to base of the two triangles, and also *(b)* the thickness of the septum at its middle point.

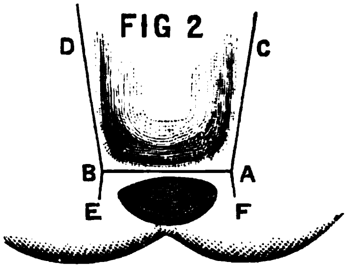
(5) That spontaneous union after the accident has been prevented by the advance of the vaginal and rectal mucous membranes posteriorly and anteriorly respectively over the septum, and also possibly to some extent by lateral encroachment by the skin.

It will be seen that the steps of the operation correspond very accurately, but in reverse order to everything that happened at the time of the accident, and during the subsequent cicatrization.

Preliminary Treatment.—The bowels are kept loose for several days by castor oil; the parts shaved and frequently washed and injected antiseptically. A large simple enema is given the last thing.

Operation.—Chloroform being administered and the patient placed in the lithotomy position, the sharp point of Tait's angular scissors are entered at *a* (Fig. 2), and a clip made transversely across the septum ending at *b*. The cut should accurately divide the septum into two parts. Its depth must depend on the extent to which the tear has approached the apex of the perineum in tears extending right up to the apex the central part of the septum will be thin, and then the cut will be proportionately shallow; usually, however, it will be at least a quarter of an inch in depth. The length of this cut is of much importance since it governs all that follows. It should extend from base to base of the two triangles forming the septum, points which originally coincided with the raphe of the perineum.

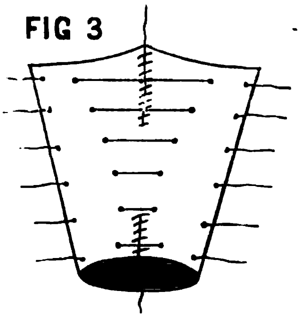
FIG 2



Clips are then made from *a* to *c*, and from *a* to *f*; from *b* to *d*, and *b* to *e*. These should lie in the junction of the skin and new mucous membrane, *i.e.*, in the original site of the raphe. In making them the scissors are simply pushed under the mucous membrane into the submucous tissue. Thus are marked out four flaps. These are raised by laying hold of them by their angles *b* and *a*; the vaginal flaps are dragged upwards and towards the middle line, blunt pointed scissors being used to separate them from the subjacent tissue. Similarly the rectal flaps are to be drawn downwards and towards the middle line.

The vaginal and rectal flaps are now sewn up by a continuous catgut suture, taking care that the rawed surfaces are in apposition (Fig. 3.)

FIG 3



There is now an irregularly quadrilateral space exposed, which is to be closed by the deep sutures. These (from 4 to 6 in number) are passed from below upwards. They enter and emerge immediately inside the skin margin, and are altogether buried except at the apex, which they just miss. They should take a wide grasp of the muscular tissue. The first suture (the lowest) unites the sphincters. This is the only one that presents any difficulty. When all are passed they should be gathered together and tightened, so as to see if the parts are properly adjusted. It will then sometimes be found that the sphincter stitch requires readjustment, and this will be the proper time to do it.

In tying the sutures, the buttocks and thighs should be held together. The ends are to be cut off short, when the whole of the suture will retire out of sight.

The after treatment is simple. The site of the operation is dusted with boric acid, and the vagina syringed antiseptically every eight hours. The bowels are left alone for three days, and then opened every other day with castor oil. The urine is drawn off by a catheter. Any sutures that can be seen or reached are removed at the end of about a fortnight.

A few points in the operation require special consideration. Many operations otherwise successful have been marred by the occurrence of a recto-vaginal fistula. To avoid this it is always well to divide the septum as freely as possible. If this is done it will be seen that when the vaginal and rectal flaps have been drawn forwards and backwards respectively, there is little or no chance of any communication being established between the two passages. If, on the other hand, the division of the septum has been superficial, the two lines of superficial sutures will practically meet at the apex of the new perineal body, and the least leakage from either cavity will inevitably result in the formation of a fistula. What to avoid in this respect is well shown in the diagram of the operation in Hart and Barbour (Fig. 328, Fourth Edition). An operation performed on the lines therein indicated (although it is correctly described in the context) would most certainly end in a fistula in a considerable proportion of cases.

With regard to sutures, No. 5 Chinese twist, boiled in carbolic, is, I think, the best. I always cut the ends short, and allow the whole suture to sink out of sight. In this many remain permanently buried, but those that do not never entail any difficulty in the removal. Stitch-hole abscesses have occurred in some, but have never affected the result.

The advantages of this operation are at once apparent—

(1) It is very easy, and can be rapidly done.

(2) No tissue is sacrificed, so that in case of failure the chances of a fresh operation are not prejudiced. The excess of mucous membranes is used to form sheds, which conduct the secretions of the two passages clear of the wound.

(3) The method of passing the sutures inside the skin ensures muscular union and prevents all chance of inversion. Far less force, too, is required than when the skin is included. By missing the apex of the space the sides come together with less strain, and the new perineal body is rendered deeper.

(4) It exactly reproduces the original state of the parts, the only exception being the slightly increased depth of the new perineum just referred to.

HYPNOTISM AS A THERAPEUTIC AGENT IN DISEASE.

By C. O. Birch, L.R.C.P. Lond.,
Liverpool, New South Wales.

◆

At the present time, when so much discussion is going on over the whole world as to the value of hypnotic suggestion in the treatment of disease, I venture to publish from my note book a case which may be of interest to the profession.

A sailor, aged 21 years, consulted me during July, 1892. He was suffering from a whitlow, and was advised to have it opened, but refused to submit to treatment without chloroform.

On examining his heart, I found he had a reduplication of the second sound, and therefore I considered his an unsuitable case for chloroform. I recommended him to submit to hypnotization, and on his consenting I was able in two or three minutes to send him into a state of somnambulism. For the first ten minutes I was a little alarmed by the heart's action becoming very excited and the rapid condition of his pulse—symptoms I had never before noticed under the use of hypnotism. During the next half-hour the heart's action and pulse became much quieter. I then proceeded to freely lance the finger and apply a hot poultice. On his awaking I inquired if he had felt anything? He replied, "nothing;" but he could recollect me talking to a friend near at hand. He also felt quite sure if he had wanted he could have prevented me from operating.

Remarks.—The traces of memory, which I have often found to occur on awakening, are not uncommon; but the power of being disobedient to commands seems quite impossible, although many patients have told me they were sure they could have disobeyed orders.

Last January I found hypnotic suggestion most useful in a case of double pneumonia, giving the patient many hours' refreshing sleep. I also found it very beneficial in a case of nervous sore throat in an old lady. In many forms of chronic neuralgia I regard hypnotism as a very valuable therapeutic agent, provided the patient is a suitable subject. When we remember that only about 38 per cent. of the public can be put under its influence, it will always be very difficult for us to choose our cases. Some day in the near future we must hope to find measures by which a very much larger percentage can be brought under its influence, and until then we shall always find unbelievers.

[THE Editor's experience is that fully double the percentage stated by our contributor are susceptible to hypnotic influence.—ED. *A.M.G.*]

PERITONITIS FOLLOWED BY ACUTE EMPYEMA—OPERATION—SUCTION APPLIED WITH SUCCESS TO EXPAND THE LUNG.

BY ALFRED SHEWEN, M.D. LOND., SENIOR HONORARY PHYSICIAN PRINCE ALFRED HOSPITAL, SYDNEY.

◆

THIS patient had been a nurse in the hospital for some months. Latterly she had complained of pain after food, more particularly in the left hypochondrium, without sickness. She was examined carefully by the Medical Superintendent, and her chest was found to be perfectly normal, and there was nothing to note about her abdomen.

A few days afterwards she was seized with acute pain in the abdomen to the left of umbilicus, and had to go to bed. She got rapidly worse; constant retching came on, with dry tongue, rapid pulse, very anxious expression and distended abdomen. She was treated with opium and belladonna pills and belladonna fomentations, and was fed entirely by the rectum for four or five days. After a very anxious time the acute symptoms abated, and the note 11 days after her first seizure was as follows:—"Progressing favourably; temperature normal; no pain; bowels act well; tongue red and irritable looking."

For some few days afterwards she did very well. Her temperature fell to the normal, and she sat up in the ward. But after six days of convalescence she became suddenly worse. Her temperature ran up, and she began to complain of pain in the chest with difficulty of breathing. About this time she passed half-an-ounce of pus per rectum, quite separate from the fæces.

On examination of her chest it was found that there was scarcely any movement on the left side, and that there was absolute dulness at the base with loss of vocal fremitus in that region. An exploratory syringe was used, and fœtid pus withdrawn. On the same afternoon her chest was opened, with the removal of portions of two ribs just below the angle of the scapula. About two pints of pus with a strong odour of fæces were evacuated. A careful examination with a long probe was made in order to find out what amount of collapse of the lung had taken place, and it was then found that the probe could be moved about within the pleural cavity with perfect freedom, even to the extreme apex. As far as we could discover there appeared to be no adhesions, and the lung seemed to be perfectly collapsed. The patient was greatly exhausted, but was got back safely to bed.

For several days after the operation the discharge had, more or less, the fæcal odour. At one time it would be quite sweet; at another the stench would be almost unbearable. However, it became sweet at last, and as soon as the condition of the external wound would allow of it, we rigged up our apparatus to lower the atmospheric pressure within the pleural cavity. The difficulties we had to overcome were chiefly these, viz.—(*a*) to keep the pleural cavity airtight; (*b*) to provide for the constant discharge of pus; (*c*) to cause little or no inconvenience to our patient.

After various experiments we found that we could do all that was necessary by a very simple arrangement. A small brass cock, about the size of one of the cocks on an aspirator, was fixed airtight by means of a flange and screw through the centre of a piece of rubber about six inches in diameter and one-eighth of an inch thick, and the under surface of the rubber was thickly coated by our dispenser with a semi-solid adhesive substance, which would hang on to the skin but not actually stick to it. A piece of rubber tubing about six inches long was attached to the mouth of the cock, which protruded on the inner surface of the rubber. When this sheet of rubber was laid over the wound, with the piece of rubber tubing reaching into the pleural cavity, we possessed a means of lowering the atmospheric pressure within the pleural cavity at will. The syringe which we used for exhaustion was an ordinary brass one about the size of an ear syringe.

The apparatus was kept in place by a flannel bandage, and a bird's nest was put round the cock to prevent it injuring the wound or inconveniencing the patient.

The profuse discharge, which, if left for a few hours, became frightfully foul, was the greatest difficulty we had to contend with. Sometimes, indeed for a day or two, we were compelled to go back to simple drainage and washing out; but as soon as the discharge became sweet we replaced our rubber, &c., and washed out more or less frequently, according to the foulness or sweetness of the discharge. Of course, when using our arrangement for producing exhaustion, we had to take it right away when we washed out the pleural cavity.

The amount of exhaustion applied was regulated very much by the patient herself, so as not to produce any great distress, and the instructions to the nurse in charge were to exhaust till the patient began to complain of a feeling of tightness in the chest; this seemed to answer the purpose very well. Sometimes we had trouble with the air getting in under the rubber if the patient moved about much, and when the nurse suspected that such was the case all she had to do was to turn the cock and re-exhaust. It was curious to note that when a partial vacuum had been produced, the movement of the chest wall seemed to be greater than when the atmospheric pressure within and without the pleural cavity was the same.

As time went on and success seemed to be following our efforts, as was shown by the gradual creeping downwards of the breath sounds and the diminishing size of the cavity, we persevered in our treatment week after week, until at last we had nothing but a sinus left as the representative of what was formerly an empty pleural cavity. This was finally got rid of by cleanliness, and gradually reducing the drainage tube in length and diameter.

The result of the treatment was this, that the patient got a chest which was a good deal flattened, and with an expansion which was by no means as good as the normal; but when she was examined with the stethoscope it was quite clear that air entered freely all over the lung, even to the extreme base. There was a good deal of trouble, as there is in all these protracted cases of empyema, in regaining the movements at the shoulder joint; but this was overcome by insisting that the patient should use the arm although it gave her pain, and by forcibly raising the arm bit by bit to the level of the shoulder. I saw this patient about a month since, she was then quite well and able to do hard work, and had got quite fat. I examined her chest thoroughly, and was pleased to find that although the expansion on respiration was considerably below the normal, the respiratory murmur was perfectly normal all over the chest, and not a râle could be heard anywhere.

This case was instructive in more ways than one. One question which naturally arose early in the case was as to the relation of the peritonitis to the empyema. That some trouble in the abdominal cavity was the cause of the empyema I do not think there can be any doubt, but whether there was any direct communication between the bowel and the pleural cavity is difficult to say; the evidence pointing to such being the case is the fact that the fluid which was found within the pleural cavity was strongly fæcal in odour, and more than this, that the fluid which subsequently collected in that cavity was decidedly fæcal in odour for many days after the operation, although the cavity was carefully syringed out twice and thrice daily. That our patient recovered from the peritonitis at all was a great surprise to us, for she was as bad as it was possible to be short of being moribund. I think the mode of treatment adopted may have assisted her, more especially that of feeding her entirely by the rectum and the application of belladonna stupes. Perhaps of all modes of applying an external sedative to the intestines in peritonitis, the one we adopted will be found to be the best, viz, a piece of lint sufficiently large to cover the abdomen was smeared all over pretty thickly with belladonna ointment and laid over the abdomen with the belladonna next the skin, and over this hot flannel stupes were applied constantly. It is not very often that one meets with an empyema so acute in its course as this. After the operation there was complete left pneumo-thorax, and no evidence of any adhesions between the pulmonary and costal pleuræ, and it was the knowledge of this which suggested to us the idea of trying to help the expansion of the lung by lowering the atmospheric pressure within the pleural cavity. I feel quite certain that without some such help as this we should have had much more difficulty, if indeed we should ever have been successful, in filling up the pleural cavity. I can recommend it to the profession as a help in the treatment of all cases of empyema, and I believe that by its means we shall in future be able to shorten the duration of these very tedious cases.

THE PREVALENCE OF STONE IN THE BLADDER IN AUSTRALIA.

By J. B. Nash, M.D., Ch. M. Ed., M.R.C.S.E., of Wallsend, N.S.W.

In the beginning of the year 1888, when preparing an M.D. thesis for presentation to the University of Edinburgh, it occurred to me that some investigations with the view of getting an idea as to the prevalence of the stone in the bladder in Australia would be useful and interesting to the surgeon and general practitioner. To this end I made enquiries from the different city and provincial hospitals. The result was published in the December, 1888, number of *The Australasian Medical Gazette.*

For the purpose of a paper before the surgical section of the congress, the investigations have been pursued for the four years 1888, 1889, 1890 and 1891. This brings our information on the subject down to date from the year 1878, or a period of fourteen years. Necessarily the knowledge gained is not perfect, but on the whole it may be looked upon as giving a fair idea of an interesting and important disease from the point of view of both the person who suffers from it and the surgeon who has to treat it. The same course has been pursued in the present as on the former occasion, *i.e.*—circulars were forwarded to the medical officers attached to one hundred and eighty-two (182) hospitals scattered over the length and breadth of Australia and Tasmania. They were asked for the number of cases treated during each year, the variety of operations adopted for the relief of the patient, the variety of calculus removed, and the city or district from which the sufferer came.

From New South Wales, where there are eighty hospitals, the replies number thirty-five (35); from Victoria, where there are thirty-five institutions, the replies were twenty-two (22); from Queensland, with thirty-eight hospitals, eleven (11) gentlemen provided the required information; from South Australia, where there are eleven (11), as many as four (4) replied; of seven places in Western Australia, only one answered, while the four hospitals in Tasmania were good enough to answer me. My best thanks are due to the medical gentlemen who have taken the trouble requisite to fill up the columns in the circular, and in this place I tender it to them.

The following is a copy of circular:—

Number of cases treated during	Operations performed.	Variety of Calculus.	City or District where patients resided.
1888.			
1889.			
1890.			
1891.			

The answers are fairly numerous, and it may be granted that the disease is hardly known to exist in the districts from which no replies have come, or, if it does occur, the sufferers have undergone treatment in some other part of the country. The results confirm the statement which I made in 1888, viz. :—That the affection was met with over all the colonies. In 1888 I ventured an opinion, in view of the information to hand, that there was an area in Victoria, in the neighbourhood of Sandhurst, Castlemaine, Kyneton and Ballarat, where the disease was especially common. This would again appear to be the case, as the proportion of cases to the whole population in the cities of Ballarat, Bendigo and Geelong is one case for every twenty thousand four hundred and seventy-two inhabitants annually (1 to 20,472·57). Outside this region the disease would appear to be distributed over a wide area of the continent. In New South Wales, stone has been known to occur in nineteen different places, some of them widely separated from one another; in Victoria in ten cities and towns; in Queensland in six well-populated localities; in South Australia in four towns, and in Tasmania in four different centres.

In a tabulated form will be seen under the headings of the separate colonies the names of the cities and towns in regard to which I have been able to get information. The table is compiled from the last question asked in my circular, and has been obtained from the addresses, kept in the hospital records, of the patients who were operated on. I have no exactly corresponding data for the ten years ending 1887, as I did not then seek the name of the city or district where the patients resided prior to being operated upon, but contented myself with knowing in what hospital the operations took place.

PLACES WHERE VESICAL CALCULI OCCURRED.

NEW SOUTH WALES.		VICTORIA.		QUEENSLAND.	
Thirty-five (35) replies reporting 58 cases.		Twenty-two (22) replies reporting 75 cases.		Ten (10) replies reporting 25 cases.	
Bathurst	1	Ararat	2	Brisbane ..	16
Braidwood ..	1	Ballarat ..	8	Cloncurry ..	1
Bulli	1	Bendigo ..	7	Maryborough ..	3
Candello	1	Bright	1	Roma	1
Cudgellico ..	1	Creswick ..	6	Toowoomba .	1
Hay	1	Geelong	6	Townsville ..	3
Kangaroo Valley	1	Gippsland ..	3		
McLeay River ..	1	Melbourne ..	35		
Newcastle ..	5	Portarlington ..	1		
Merriwa	1	Warrnambool ..	1		
Narrabri	1				
Nyngan	1				
Picton	1				
Parramatta ..	1				
Raymond Terrace	1				
Singleton	1				
Sydney	36				
Wellington ..	1				
Yass	1				

SOUTH AUSTRALIA.		TASMANIA.		WESTERN AUSTRALIA.
Four (4) replies reporting 9 cases.		Three (3) replies reporting 16 cases.		One Report.
Adelaide	6	Hobart	11	Two cases from W. A. were operated upon in Victoria.
Gumeracha ..	1	Launceston ..	3	
James Town ..	1	Deloraine ..	1	
Kooringa	1	Ringarooma ..	1	
		NOTE:—In addition to the above, one supra-pubic operation was performed in Victoria on a patient who came from Tasmania. (Op. in 1889).		

An idea of the work done in the decade ending with 1887, and the four years ending 1891, may be gained by comparing the annexed tables, which show the number of operations performed in hospitals situated in the towns and cities named.

It is evident that, with the increase of population, the number of stone cases has also been augmenting, as in New South Wales for four years fifty-eight (58) cases, or an average of fourteen and one half (14·5) cases per annum have occurred, while in the ten (10) preceding years the average had been about nine (9), with a total of ninety-one (91). In Victoria during the recent four (4) years there have been over eighteen (18·75) cases annually, while, in the anterior decade, the number was not quite nine (9) per annum. In marked distinction to the other colonies is South Australia, where the population has been increasing at the rate of 3·12 per cent. annually, the number of cases in each year has decreased from an average of 4½ to 2¼. Nor can this be accounted for by a diminished number of replies to my circular, as they have been equally as numerous this year as in 1888; but the cases seem to have been fewer in the Adelaide and the Adelaide Children's Hospital, and in Kapunda.

In Queensland the average for the four (4) years has been 6¼ cases. This I cannot compare with previous records owing to their being so scanty, and thus not giving a fair view of what then existed.

In Hobart, with its population of 33,450, 2¾ cases have been stated to me as occurring every year. This is a large proportion, and is a considerable advance on an average of less than one case for the preceding period, and is not to be accounted for by an increase in the population, which has only been at the rate of 1·63 per cent. per annum.

PLACES WHERE CASES WERE TREATED FOR DECADE ENDING 1887.

New South Wales.		Victoria.		South Australia.		Queensland.		Tasmania.		Western Australia.	
Sydney—		*Melbourne*—		*Adelaide*—							
Sydney	55	Melbourne ..	31	Adelaide ..	23	Maryborough	2	Hobart.. ..	6		
Alfred	22	Alfred.. ..	19	Children's ..	22	Townsville ..	1				
Sick Children's ..	1	Sandhurst ..	13	Kapunda ..	7	Bundaberg ..	1				Nil.
Newcastle	11	Castlemaine ..	4	Burra Burra ..	1						
Forbes	2	Kyneton ..	5								
		Hamilton ..	4								
		Daylesford ..	3								
		Ballarat ..	4								
		Clunes	3								
		Sale	3								
Totals	91		89		53		4		6		Nil.

PLACES WHERE CASES WERE TREATED FOR 4 YEARS ENDING 1891.

New South Wales.		Victoria.		South Australia.		Queensland.		Tasmania.		Western Australia.	
Sydney—		*Melbourne*—		*Adelaide*—		*Brisbane*—					
St. Vincent's ..	5	Sick Children's	24	Adelaide ..	7	Brisbane ..	13	Hobart ..	11		
Sick Children's ..	8	P. Alfred ..	10	James Town ..	1	Children's ..	5	Launceston ..	5		
Sydney	10	Melbourne ..	12	Kooringa ..	1	Townsville ..	3				
Alfred	22	Ballarat ..	8			Toowoomba ..	1				
Newcastle	9	Geelong ..	6			Maryborough	3				Nil.
Hay	1	Bendigo ..	7								
Parramatta	1	Creswick ..	6								
Yass	1	Ararat	2								
Singleton	1										
Totals	58		75		9		25		16		Nil.

If we work out for the year 1891 the number of cases to the populations (as given in Mr. Coghlan's "Seven Colonies of Australia"), we get the following proportions by averaging the number for the four (4) years.

In New South Wales, one case to 80,365·51 of the total population, or one case to every 43,508·27 of the male population. In Victoria, one case to 61,706·88 of the total, or one case to 29,380·58 of the male population. In Queensland, one case to 63,130 of the inhabitants, or one case to 35,779·38 of the males. In South Australia, one case to 144,784·88, or one case to 75,424 males. In Tasmania, one case to 38,154·75 of whole population, or one case to 20,229·25 males.

In Hirsch's "Handbook of Geographical and Historical Pathology," volume 3, page 470 (New

Syd. Society), the only statement in regard to the proportion of calculi to population in Great Britain refers to Aberdeenshire in Scotland, where, during 10 years, ninety (90) patients were operated upon for stone in the Aberdeen infirmary, or nine per annum. Estimating the population of the county at 250,000, we get one case to every 27,800 inhabitants.

In addition to the cases that I have been able to gather from the hospitals, there were, doubtless, during the past four (4) years, several operations annually performed in private. If these could be collected, they would serve to show that the disease is more common than my calculations would lead one to believe.

We have read a great deal of late about stone in India, and the following statement, in the same authority as quoted before, is of interest, page 461. . . . "The chief seat of the malady on Asiatic soil is India, although it is not so very long ago that that country had the reputation of enjoying an especial exemption from calculus. . . ." "In the North-west Provinces," says Balfour, "you might build walls with the calculi . . . . a truly endemic disease."

In a tabulated form, the proportions in the colonies named are as under :—

NEW SOUTH WALES.	VICTORIA.	QUEENSLAND.	SOUTH AUSTRALIA.	TASMANIA.
14·5 cases per annum, *i.e.*, one to 80,865·81 inhabitants, or one to 40,508·27 of the male population.	18·75 cases per annum. *i.e.*, one to 61,706·88 inhabitants, or one to 29,380·58 of the male population.	6·5 cases per annum, *i.e.*, one to 68,130 inhabitants, or one to 35,779·38 of the male population.	2·25 cases per annum. *i.e.*, one to 144,784·88 inhabitants. or one to 75,424 of the male population.	4 cases per annum, *i.e.*, one to 38,154·75 inhabitants, or one to 20,229·25 of the male population.

N.B.—In Aberdeenshire, one case to 27,800 of the population.

I have worked out the proportion of cases to the male population as the disease is so much more common in this sex, and with little doubt the cases which have not been accounted for would amply cover those occurring in the female inhabitants. In all countries the female is much less subject to the disease, why, is not apparent at present.

Formulating an opinion as to whether the disease is increasing in Australia, it appears to me that the larger average of cases for the last four years (as compared with the preceding decade) are accounted for by the augmented population, and not by any special endemicity, though it may come to pass as the continent becomes more thickly populated, that in definite, and perhaps well defined areas, the inhabitants will be very subject to the affection. Even at present the proportion of cases in Tasmania is not far short of that in Aberdeenshire, and grouping Geelong, Ballarat and Bendigo, the ratio is greater than elsewhere.

The next question to consider is the varieties of calculi that have been met with, as noted in the circulars returned. They may be divided under three heads, viz.: uric acid (including urates); phosphates (triple and other); oxalates. During the four years in New South Wales there have been twenty-three (23) stones of uric acid, fourteen (14) of phosphates, and one (1) of oxalates ; in Victoria, twelve (12) of uric acid, thirty-nine (39) of phosphates, and nine (9) of oxalates; in Queensland, two (2) of uric acid, five (5) of phosphates, and three (3) of oxalates ; in South Australia, six (6) of uric acid, two (2) of phosphates, and one (1) of oxalates ; in Tasmania, two (2) of uric acid, and three (3) of phosphates.

In tabulated form as follows :—

	N.S. WALES.	VICTORIA.	Q'LAND.	S. AUS.	TASMANIA.	W. AUS.	TOTAL.
Uric acid (including urates)	23	12	2	6	2	Nil.	43
Phosphates (tripple and other)	10	39	5	2	3	Nil.	59
Oxalates	1	9	3	1	..	Nil.	14
TOTALS ..	34	60	10	9	5	Nil.	118

Doubtless phosphatic stones occur mostly in men of mature age, where irregularities in the wall of the bladder, or in the prostate, give special physical conditions which would allow of material of higher specific gravity than the fluid portion of the urine being deposited, there to form a nucleus around which new layers are constantly and with a much varying rate accumulating. The uric acid and oxalic acid calculi are not confined to any definite period of life, and they would appear to have their originating factors in some dyscrasia of the blood or secreting structures of the kidney; these constitute much the larger proportion of the cases in children. Quoting from Hirsch, he says in this relation, page 482, " . . . We shall be driven to conclude that the real etiological factors in the establishment of this pathological process are to be looked for rather in the disposition of the individual, congenital or acquired, or in certain habits of life and nutrition, than in any exterior influences, climatic or teluric."

May we hope that the new school of pathology under the able guidance of Metschnikoff, Woodhead and others, while pushing its work in opening up the functions of the individual components of the *corpus humanum*, shall find, lurking in the protoplasm of the renal cells, an especial power for removing from the blood material, which, when in abnormal quantities, might act as a poison, but instead is thus enabled in the tubes or pelvis of the kidney to become the nucleus of a future calculus of the bladder, no matter how the material may get into the blood, be it by errors in diet, or by functional derangement of any of the bodily organs. Recent pathological work seems to me to be opening up vast fields of medical knowledge, to be on the right road to clear up many problems in our art, and to be lifting the veil of obscurity from others; amongst them may be the pathogenesis of calculus vesicæ.

A very important subject is that of the variety of operations performed for the relief of the stone in the bladder; it has become doubly interesting during the last ten years, as the advances made in the crushing procedure have been very great. In working this matter out I shall do so under three (3) heads, viz.:—

1st. Lithotrity, meaning by this the crushing of the stone at a single sitting, and removing the debris at the same time, *i.e.*, litholopaxy of Bigelow. 2nd. Perineal lithotomies; and 3rd. Suprapubic lithotomies. The answers I have received deal with one hundred and twenty-four (124) operations; thirty-eight (38) in New South Wales, forty-four (44) in Victoria, twenty-five (25) in Queensland, nine (9) in South Australia, and eight (8) in Tasmania. In a tabulated form they may be seen at a glance in the following:—

	N.S. WALES.	VICTORIA.	Q'LAND.	S. AUS.	TASMANIA.	W. AUS.	TOTAL.
Lithotrity	16	2	3	2	3	Nil.	26
Perineal Lithotomies	10	37	15	2	1	Nil.	65
Suprapubic Lithotomies	17	29	7	5	4	Nil.	62
TOTALS ..	43	68	25	9	8	Nil.	153

The suprapubic and the perineal operations have been nearly equal favourites with Australian surgeons. In New South Wales and Tasmania the crushing procedures have been in excess of the perineal cutting operations.

In New South Wales, South Australia and Tasmania, the suprapubic has been the favourite procedure; while in Victoria and Queensland the perineal route to the bladder has been the elect.

From the particulars which have appeared in the various medical journals, written by Indian surgeons, the claims of the crushing methods of removing stone have been advanced, and great deference must be given to the opinions of these gentlemen who have such large experience in so few years. To me the great advantages of this operation are the low death rate and the rapidity with which patients of all ages recover. In regard to the former, Sir Hy. Thompson, writing in 1883, ("Diseases of the Urinary Organ," p. 97-1) says: "Never, I believe, has it in the history of surgery hitherto fallen to the lot of any man to operate for the stone on one hundred and twelve (112) elderly male patients with only three (3) fatal cases." At that time this was a great achievement, but from the records which we have had since had placed before us, it has been exceeded, and it can doubtless be equalled by surgeons less skilful than Sir Henry in the immediate future. Old people (by this meaning those over sixty years) stand the operation well, especially if none of the stone be left behind; and instead of the bogie "Cystitis," which in the days of the many sitting procedure militated against the prospects of recovery, being a danger, it is rapidly cured by the removal of the irritating stone, and its persistence is an indication that the whole of the offending material has not been got rid of. The low mortality of three (3) per cent., which Sir Hy. Thompson said was "a better achievement than he had ever ventured to hope for," has been improved upon, and an elderly person with stone can now be told almost certainly that in submitting to this procedure he is running little risk, and he has every chance of a complete cure.

In regard to the second advantage. In 1888 I worked out a series of cases, giving the periods during which the patient remained in hospital after undergoing this operation, the result being that in children about seventy (70) per cent. required less than five days' treatment, or rather rest, while only one patient out of one hundred and five (105) needed to remain over twenty (20) days, while in adults nearly seventy (70) per cent. were discharged within five (5) days, and none required more than twenty (20) days' looking after. The prophecy of the leading English authorities, who, in the beginning of the eighties, said that in adults the cutting operations for stone would at no very distant date become a thing of the past, with few exceptions is being more than fulfilled, and the prophecy can now be extended to youths and those of tender years.

But has not lithotrity its disadvantages? Certainly! And more especially do some of them exist in this country; they are 1st: The trouble (expense and other) in obtaining reliable and suitable instruments where the demand for them is not great; especially is this the case where those required for children are needed. 2nd. The difficulty of the operation in the hands of surgeons who, only at distant intervals, have the opportunity and necessity for its employment; and these only begin with the introduction of the lithotrite to the bladder. 3rd. The danger of the last fragment.

Perineal lithotomies, those time-honoured methods of curing this disease, have been used by Australian surgeons in forty-five (45) cases. The advantages and usefulness of this route into the male bladder will ever remain for the removal of those stones which are not too large for the incision that can be made in the prostate.

Suprapubic lithotomies are the means frequently resorted to in Australia for removing calculi. Statistics in both children and adults go to show that the deaths after this proceeding are much the more numerous. In the lists of cases that I have gone through, the rates are in children at least five (5) per cent., and in adults 18.18 per cent.

PROCEEDINGS OF SOCIETIES.

QUEENSLAND MEDICAL ASSOCIATION.

THE usual monthly general meeting was held in Brisbane in the rooms of the Pharmacy Board. There were present: Dr. Taylor (President), in the chair, Drs. Marks, Thos. Bancroft, Comyn, Hirschfeld, Jackson, Tilston, W. Kebbell, O'Doherty and P. Bancroft. Visitor: Dr. Booth.

DR. THOS. L. BANCROFT exhibited some entozoal parasites.

DR. JACKSON exhibited eight patients showing the various and usual affections caused by the presence of filaria sanguinis hominis, viz., lymphangeitis of arm, several conditions of elephantoid leg, elastic tumours of the groin, scrotal varices and chyluria.

DR. THOS. L. BANCROFT exhibited some entozoal parasites, and read the following notes:—

ENTOZOAL PARASITES.

By THOS. L. BANCROFT, M.B. EDIN.

I SHOW you some specimens of Stephanurus dentatus—a worm which infests the pig. It is found in considerable numbers in the kidney fat. Opinions are divided as to whether it does harm. Dr. Morris, of Sydney, as far back as 1871, encountered it there, but I think it has never before been recorded as occurring in Queensland. These specimens were found by Dr. White, of Geraldton, who writes that the worm is a common one in pigs on the Johnstone River.

In this bottle, and under a microscope, are specimens of Anchylostomum duodenale—the parasite which sets up anæmia (Egyptian chlorosis). It is widely distributed over Queensland, but is especially abundant north of Townsville. I should like to learn from those who have had opportunity to treat persons suffering from the effects of this parasite, what remedies have been found most serviceable. Although I have myself never treated a case, I have recommended practitioners in the North to try santonine, continued over a long period, together with iron in its ferrous state, such as Blaud's pill.

Under another microscope are placed specimens of Trichocephalus dispar—a human intestinal parasite commonly found in the cæcum, and generally regarded as harmless. These specimens were procured many years ago by Dr. Thomson from a person dead of typhoid fever. Dr. Thomson says that whenever he looked for the Trichocephali at *post-mortem* examinations at the Brisbane Hospital, he succeeded in finding them in plenty in every instance.

Under other microscopes I show you specimens of Filaria sanguinis hominis in blood and in chylous urine. These, you will have no difficulty in seeing, are the filaria of Lewis. So far we have not met with Manson's filariad, major and minor.

The conclusions of the pioneers of research into the life history of filariæ not appearing to me as necessarily the inevitable ones, I now submit to you some deductions of my own, partly theoretical and partly the outcome of observation, trusting that those against whose views they seem to militate will receive them in the generous spirit in which they are proffered.

To account for the nocturnal appearance of large numbers of embryo filaria in the blood, Dr. Manson, in his book * at page 40, remarks:—"The nocturnal habits of filaria sanguinis hominis are adapted to the nocturnal habits of the mosquito, its intermediary host; and this is only another of the many wonderful instances of adaptation so constantly met with in nature." In China the mosquitoes appear to be nocturnal only in their habits; unfortunately, in this country our mosquitoes are not so considerate, and feast upon us the whole day. In Queensland, with rare exceptions, it is possible to find some embryos in the blood of a filariated subject any time during the day.

---

* "The Filaria Sanguinis Hominis." By Patrick Manson, M.D. Lewis: London, 1883.

A good rule to follow in searching for filaria, whether by day or night, is:—

(1) To make the person lie down for at least half-an-hour (the longer the better) before pricking the skin.

(2) To take the blood from a part where contraction of muscles never, or least frequently, occurs—a part such as the lobe of the ear. The tip of the finger is one of the worst places. Frequently blood from the ear shows plenty of worms, whereas finger blood, taken and examined at the same time, is free from them.

(3) To examine immediately a full-sized drop of blood squeezed from the part, with a low power (50 diameters or thereabout), for the worms wriggle with great energy at first, and easily attract the eye.

The nocturnal appearance of the embryo filaria is assumed by several authorities to have connection with sleep and mosquitoes, but I think a more probable explanation is that during the sleeping hours of their host the embryos can swim about with impunity, not being in any danger from injury by contracting muscles; the continual oscillation of the blood, caused by every sudden movement, might also be irksome to them. In other words, the filariæ lie quiet, probably attached by their flagella to the walls of small veins whilst their host is at work, and swim about when he is at rest. A similar phenomenon occurs with many fish, especially with the larger varieties; whilst the tide is running in or out rapidly these fish remain at the bottom, but during slack water they swim and feed.

We know that the filaria of the dog and those of birds mature very early. I have seen birds only a month old and dogs under a year infected. By analogy, therefore, we would suppose that the human filaria also matures early. It is a law "that animals and plants, which soon grow to maturity, have a short existence, whereas those that mature late live long." It is reasonable, then, to suppose that the life of the human filaria is a short one, probably not exceeding five years. Now, assuming that this is so and that mosquitoes are essential to its propagation, it follows that removal of filariated subjects to England or to any country devoid of mosquitoes would be the means of soon ridding them of the parasites; but this appears not to be the case, and the fact rather strengthens my supposition that no intermediary host is necessary. Persons who harbour the filaria live under conditions favourable to its propagation, and probably re-infect themselves frequently. I have been in the habit of telling filariated persons, whom I have had opportunity to treat, the life history of the parasite as taught by Manson, and I also tell them that the worms in their system can but live a few years at the outside; that provided they can prevent re-infecting themselves they will ultimately be free from them. I persuade them never to drink other than boiled water; I say, "never drink water—drink tea—and observe strict attention to cleanliness."

We may be in error in assigning to the mosquito, or indeed to any host, assistance in the propagation of filariæ. These worms may after all, notwithstanding assertions of eminent authorities to the contrary, propagate themselves much in the same manner as the ordinary nematoid intestinal parasites. The main objection to accepting this theory, viz., "that the life circle of a filaria is complete in the one host," is that we should expect to meet with every stage of growth of the worm from the embryo to the adult. In dogs I have found very young forms of the parent filaria immitis in small branches of the pulmonary artery, forms only two or three inches in length, whilst the adults are 10 to 12 inches. To prove that these young grew from embryos without leaving the body of the dog I have no evidence; all I can say is that I think they did.

It is possible that the adult female may produce young parthenogenically, *i.e.*, without impregnation, and that after impregnation she may produce a brood capable of developing into adults; she may, after giving birth to such a progeny, die. I am unable to offer an explanation of the *rationale* of a parthenogenic brood. Some years ago I found that many birds in the colony harboured filariæ.* I fortunately found them in the Blue Mountain Parrot, which is exclusively a honey feeder; I say fortunately, for it narrowed down to small limits the question of the propagation of filariæ. Either no intermediary host is required, or the louse of this bird is the intermediary host. It is a minute kind, and present in small numbers. The bird's beak, too, is not adapted to picking lice, so the probabilities seem rather against its being the intermediary host.

I have endeavoured to trace the embryo filaria of the dog in the fleas, which have sucked blood, but further than one day or so I have not succeeded. Fleas and lice being such small animals makes an investigation of this kind difficult and extremely tiresome. It seems to me that the presence of human filaria in the blood is not essential to their propagation, for we find many severe cases of filariasis in which the embryos, although present in lymph discharges, are entirely absent from the blood.

---

* "On Filariæ of Birds." Proceedings Royal Society of Queensland, vol. vi.

Hitherto I have not been able to get a willing filariated subject, or I should have endeavoured to verify what Dr. Manson has written on filarial metamorphosis in the mosquito. I hope, however, to make a further investigation into the life history of Filaria immitis of the dog. Frequently the parent human filaria are killed by being squeezed or injured in some way, and they then give rise to abscesses. This has led me to think that "massage" might be useful as part of the treatment to adopt in filarial cases, as by its use we may be successful in killing some at least of the parasites.

I show you in these bottles specimens of Filaria immitis and Filaria macropodis gigantei of the kangaroo.

DR. JACKSON read the following notes :—

WHAT EFFECT HAS THE F. SANGUINIS HOMINIS UPON ITS HUMAN HOST IN QUEENSLAND?

BY E. S. JACKSON, M.B. ET CH. B. MELB., MEDICAL SUPERINTENDENT BRISBANE GENERAL HOSPITAL.

I HAVE seen about 40 cases in two years, and I have histories or recent experience of nearly 30 cases, embracing most of the conditions which observers in other countries have attributed to filaria. Apparently the Queensland hosts of these parasites suffer less than one would expect. The majority of the cases I have examined enjoy good health—even those who are subject to periodical attacks of the pyrexia, which has been called elephantoid fever by Fayrer, in the interval. But it seems to me that there is no security for the continuance of this. The cases I have examined are almost all young, most of them under 20. The oldest is 52 years, and is the worst case I have seen; he has a leg and foot of marked elephantiasis, which gives him much trouble, and is subject to much erysipelas. I should think it probable that as the years go on the younger cases may become as bad, especially if as neglected as he permits himself to be. Moreover, the disease as I have seen it occurs only in the native born population, or in people who have come at an early age from other countries to abide with us. Therefore when our colony and our native born population are older, we may expect the disease to present those severer forms which are described in other countries. I think that these severer forms have not been found among aboriginals, and if my surmise be correct, this fact is some proof that the disease has been introduced into this country from some other home of the mosquito.

Locally the chief signs of the disease, as I have observed them, embrace the dilatation of the inguinal lymph vessels, called by Dr. J. Bancroft the helminthoma elastica; some enlargement of lymphatic glands; the formation of lymph vesicles upon some portion of the affected limb; elephantoid swellings, rarely of the scrotum or arms, generally of the lower extremities. Chyluria, and now and again abscesses, such as the one I show, which may be due to the death of a mature worm in some lymph vessel. During the *pyrexial attacks* which I have mentioned there is frequently a local imflammation, perhaps an orchitis, perhaps a blushy erysipelatous condition in the track of some enlarged lymphatic vessels where also there is a painful swelling more or less. But it is not always so.

The attacks of pyrexia (vomiting, rigor, headache, elevated temperature, up to 103° F. or more) may be accompanied by no recognizable local change, and are sometimes called by the patients themselves "bilious attacks." So far as I have observed, there is not much to be gained by a consideration of the occupations of the cases. It seems, however, to be common among butchers and fellmongers, and probably it will be found that these men have more frequently had to drink from stagnant pools or water contained in unclosed tanks.

As regards birthplace, most of the cases come from places within 30 miles of Brisbane, one from New South Wales, and but few from European countries. Enquiries into the quality of the water supply from which they have drawn elicits nothing satisfactory. Many have lived in the vicinity of a creek or swamp, and have drunk therefrom; most have consumed both tank and tap water. With regard to family history, in several instances two or three people in one family are affected. This, I believe, is a common experience, and is of great importance, because it emphasizes the danger of its spreading from one person to another with the assistance of the mosquito. It suggests, also, the necessity for adopting some preventive measures. Concerning diet and habits, nothing has appeared in the consideration of my cases which gives any suggestion as to causation or treatment. The duration of the disease in the cases under observation has varied from about one to twelve years. In the case of the man aged 52, with elephantiasis, he gave a history of two months' trouble; but he is not very reliable in the matter, and I think must have had swelled legs for a much longer period. Upon one other matter I think enquiry in a large number of cases may elicit valuable information. I refer to the evidences of puberty in these cases. I am inclined to think that one of the effects of this parasite will be found to be delayed menstruation in girls and late arrival of puberty in boys; but information on this subject in the male sex is not so reliable as in females, and it is a difficult matter to approach.

Treatment.—As regards treatment I have nothing new to propose. I have seen elastic swellings of the groin injected with iodine, and in one case it was followed by peritonitis, which was, I think, nearly fatal. I do not recommend anyone to try it. Dr. Bancroft has suggested trusses for these cases of elastic swellings, but I have not tried them often. I have seen the femoral artery tied for elephantiasis of the leg with no better results than could have been attained by the accompanying rest in bed. I have seen in Queensland only two cases that I can recollect of what I call marked elephantiasis. Both were much benefitted by rest in bed with application of Martin's rubber bandage to, and elevation of, the limb. In both the warty thickening of the skin, which was present on the dorsum of the foot and about the clefts of the toes, almost entirely disappeared after a few weeks. Minor cases of elephantoid leg, which I am accustomed to call "Barbadoes" leg (like those I have shown to-night), may be treated in the same way, the patients continuing to wear the rubber bandage with comfort. It is as well to insist on a few days', or a few weeks', complete rest in bed and elevation of the limb, which thus regains almost its normal measurements, and can be kept so with the bandage when the patient rises. Among the cases I have seen, I have not seen one of elephantiasis of the scrotum, but removal by the knife seems to be the treatment for this. We have in the hospital at present a case in which some dilated lymph vessels in the scrotum have been tied by Dr. Marks for the treatment of a recurrent and painful epididymitis. It remains to be seen what benefit will result. In one case of hydrocele, with a milky fluid in it and filaria in the blood, benefit seemed to follow tapping two or three times. I should have injected iodine in this case, but was mindful of the peritonitis that followed in a similar proceeding in an elastic swelling, as I have mentioned. For the treatment of lymph vesicle on a limb there is nothing special; but for chylous urine (which is said to be due to the rupture of a vesicle in the mucous membrane of the bladder) I have had success under a course of the tincture of perchloride of iron, but have never used an injection into the bladder. In one case of chyluria, under treatment for 18 months with arsenic and other remedies, recovery was effected while taking the iron in about one month. This woman and other cases have informed me that the chylous urine disappeared after the night's rest, to return after being out of bed for a few hours; and I apparently succeeded in curing a man of the condition by keeping him in bed for nearly a week. The one case is but slight evidence to go upon, but it would be worth trying. For those cases in which chylous urine is mixed with blood—hæmato-chyluria—turpentine ergot and ordinary hæmostatics would be indicated. The erysipelatous attacks and lymphangeitis require only the ordinary antiseptic moist pads for their relief as a rule, with, of course, rest in bed, while abscesses are treated on ordinary principles. What can be done to destroy or remove the parasites I do not know. The commonest remedies tried in my experience have been the tincture of iron or liquor arsenicalis. If the presence of the embryos in greater or less quantities is to be taken as a criterion as to the want of effect, or the effect of a medicine, then I may say that I have known the embryo difficult to find in the blood of patients who have been taking courses of these drugs, as I have known them disappear also in those who have once had filarial embryos, but have never taken any medicine. I once tried, at the suggestion of the late Dr. Ralph, of Melbourne, the sulpho-carbolate of soda, but with not very marked results after six months' treatment.

Dr. Marks described the cases of two patients suffering from this disease who died very suddenly, in his opinion, from cardiac embolism. He found patients who suffered from elastic swellings benefitted by wearing a truss.

Dr. Kebbell asked if it were believed that swellings of the limbs were due to the parent worm aborting?

Dr. Booth referred to the effect of rest causing a disappearance of the chyluria.

Dr. Peter Bancroft said that, judging from the number of young children he saw whose blood contained filarial embryos, he considered that the disease was increasing in Brisbane. He referred to two patients in the Children's Hospital, admitted for popliteal abscess (which was a very common thing to see in children), who harboured the parasite. He intended to examine the blood in all cases of deep abscesses to find out what proportion might be due to filaria. With regard to the treatment of chyluria, he had tried a number of remedies, including rest, iron, gallic acid, chlorate of potash and arsenic, in doses gradually increasing up to gr.¼ of the iodide of arsenic, but there was no certainty about any of them. He had thrice introduced into the bladder gr.xx of the tartrate of iron dissolved in 2oz. of water in cases where there was much blood with the chyle, the bladder being first emptied. On the first occasion he was called to the patient some hours afterwards, he (the patient) had had a rigor and was feverish, lying upon his side with legs drawn up. He complained of pain, and from the meatus of the urethra a few drops of clear urine issued every few seconds. After a hypodermic injection of morphia the patient was quickly well. On the other two occasions there was no rigor, and the hæmato-chyluria gradually ceased in two days. He thought this method not altogether free from danger, but justifiable, perhaps, where there was much blood. Another method he intended to try, as being freer from risk, was to tie a catheter in the bladder for about 24 hours. The pressure in the lymphatics being low, he thought the contracted state of the bladder might shut off the chyle, and in a few hours the leaking point might be sealed.

Dr. Taylor and **Dr. Hirschfeld** joined in the discussion.

Dr. Jackson said: I felt disappointed when Dr. T. Bancroft ventured to doubt Dr. Manson's experiments. Of course the former might have some good grounds for doing so, but I had carefully read many communications on the subject, and believed that those experiments which Dr. Manson had made with reference to development of the embryo in the mosquito had been corroborated by many observers. I should, therefore, like to ask Dr. Bancroft on what grounds he had suggested the doubts? I find no difficulty in accepting the possibility of there being other hosts by reason of the similarity in the development of human hydatid from tape worm.

Dr. Thos. L. Bancroft replied—

To Dr. Kebbell.—The ova being broader than the worms blocked the lymphatics, according to Manson; the swellings in the groin probably contained the mature worms, but there was great danger in interfering surgically with these swellings.

To Dr. Marks.—The female mosquito after her meal of blood remained quiet, attached to the wall, for several days, and then resorted to water to deposit her eggs, afterwards dying; the embryo filaria, if present, made their escape into the water. Manson was unable to prove that the changed filaria could develop to parent filariæ because of the unjustness in experimenting on his fellow man; he tried to infect monkeys but failed. Monkeys, however, do not harbour filaria, and probably the human filaria would not live in any but a human host.

To Dr. Taylor.—The Aborigines of Australia do not harbour filaria, and it was very probable that the filaria was introduced from China and the South Sea Islands.

To Dr. Jackson's question why Manson's mosquito metamorphosis was doubted, Dr. Bancroft said that undoubtedly Manson was a great authority, and with almost everything he had said he agreed, but certain observations he himself had made did not quite support the theory of an intermediary host; he hoped, however, to make further investigation. If only he were able to get a person willing to be experimented upon he would endeavour to verify the metamorphosis of filariæ; if one failed, Manson would say an unsuitable kind of mosquito had been made use of. There were at least six kinds of mosquito in Brisbane, and many others in the north. Filariasis was endemic all along the coast.

Dr. Jackson said that he could find a willing filariated subject for Dr. Bancroft.

BALLARAT (VIC.) MEDICAL SOCIETY.

The ordinary monthly meeting was held at Ballarat on the 28th June at 8.30 p.m. Present: The President (Mr. Whitcombe), Drs. Pinnock, Morrison, Salmon, Mitchell and the Hon. Secretary (Dr. Scott).

The minutes of last meeting were read and adopted.

Dr. Pinnock read a paper on "Some Cases of Vesical Calculus," in which he gave statistical tables of cases operated on by him, and also of cases from the hospital records. The paper dealt in detail with the different operations adopted, and also with the comparative rarity of the disease in this district—only 41 cases being recorded in 32 years. Dr. Pinnock believed that the hereditary tendency to stone was, in this country, counterbalanced by the mixed marriages that take place, although he considered colonial beer and the native sweet wines so largely consumed should, on the other hand, tend to promote the disease.

After routine business had been dealt with, the meeting adjourned.

SOME CASES OF VESICAL CALCULUS.

By R. D. Pinnock, M.D., C.M.,

Hon. Surgeon Ballarat Hospital, Victoria.

The comparative rarity of stone in the bladder in this district must be my excuse for bringing before you this evening the following somewhat limited experience of this serious and terribly painful surgical ailment. I have operated altogether 11 times, and present the cases in the appended tabulated form:—

Initials.	Sex.	Age.	Date of Operation	Date of Discharge	Variety of Operation.	Character and Weight of Calculus.	Result.	Remarks.
1. H. S.	M.	68	20-6-83	22-8-83	Lateral Lithotomy (Rectangular staff)	Uric acid, gr. 630	Cured	
2. D. D.	M.	80	1-5-84	5-6-84	Lateral Lithotomy	Two Phosphatic, gr. 70	*Died*	From Broncho-pneumonia
3. M. G.	F.	3	10-2-86	31-2-86	Lithotrity after dilating urethra	Uric acid with phosphatic coating. Debris not weighed	Cured	Stone previously measured *in situ*, 1½ inch by ¾ inch.
4. W. S.	M.	55	5-5-89	..	Lithotrity	No record	Cured	
5. J. G.	M.	60	23-7-90	..	Median Lithotomy	Phosphatic, gr. 6	Cured	Stone embedded in sulcus between lobes of prostate. Symptoms remained after operation, and on searching another stone was found, and when operating for this a third was found encysted in posterior wall.
6. J. G.	M.	60	24-8-90	30-9-90	Lateral Lithotomy	Two phosphatic, gr. 164, gr. 43		
7. J. M.	M.	66	18-11-90	30-11-90	Lateral Lithotomy	54 uric acid with phosphatic coating, oz. 1 dr. 3; largest, gr. 34; smallest, gr. 3	*Died*	Cystitis and Pyelitis at time of operation; had been passing calculi per urethram for years.
8. T. H.	M.	60	6-11-91	17-12-91	Lateral Lithotomy	Seven small uric acid, gr. 56	Cured	
9. W. G.	M.	9	16-11-91	10-12-91	Lateral Lithotomy	Oxalate of lime, gr. 66½	Cured	Symptoms had existed since 2 years of age.
10. M. Y.	F.	50	16-10-92	19-10-92	Dilated urethra, and extracted with forceps	Uric acid with phosphatic coating, gr. 12	Cured	
11. J. G.	M.	62	14-10-92	10-11-92	Lateral Lithotomy	Three phosphatic calculi, gr. 30, 30 and 32	Cured	One stone encysted in anterior wall.

In order to facilitate any discussion that you may be pleased to initiate, I have synopsised, as far as the character of the records permit, our hospital cases. It is a matter for regret that the characters of the calculi, as well as their dimensions and weights, are only mentioned in a few instances. The Ballarat Hospital records only give us a total of 41 cases of operation for vesical calculus from 1861 to date, viz., a period of 32 years, or an average, roughly, of only five cases every four years. Eight of my 11 cases are included in the above total. There are no means of calculating the number of cases operated on in private during the same period; but I think that the addition of one-third (say 14) would not be far from the mark.

The mortality of the 41 hospital cases is 14 (about 34 per cent.), so that I may fairly congratulate myself on my results of two deaths in 11 operations, and one in eight of my hospital cases, which is a mortality of 12·5 per cent. One of these two deaths was due to broncho-pneumonia a month after the operation, in a man 80 years old. The other took place 12 days after the operation, the patient being a beer drinker, 66 years of age, and had cystitis and pyelitis when operated on. He had suffered from repeated attacks of renal calculi during the preceding seven years, and had passed a great many calculi per urethram. He had always refused to be operated upon, until his sufferings became so great that he could hold out no longer.

The causes of death set down in the hospital cases are: Peritonitis two, hectic two, shock one, pyæmia one, measles one, pyelitis one, broncho-pneumonia one, extravasation of urine one, asthenia one, no stated cause, three.

The ages of the patients are not recorded until 1883, except that two deaths are mentioned as occurring in children. After 1883, out of 17 operations all the patients were over 50 years of age, except three, who were respectively five months, two and a half months, and nine years.

There appears to have been three periods of bad, good, and indifferent results for stone operations at our hospital. First, from 1861 to 1867, with eight operations and six deaths, a mortality = 75 per cent. Second, from 1867 to 1876, with 16 operations and one death, a mortality = 6·25 per cent. Third, from 1883 to 1893, with 17 operations and seven deaths, a mortality = about 42 per cent. From 1876 to 1883, a period of seven years, there are no records of any case of stone operation—a very remarkable gap in the history of a hospital of the size of the Ballarat, and fed as it is by such a large surrounding district. The absence of any cases during this period is the more interesting, as the uniformly good results achieved during the preceding nine years would have rather encouraged than deterred those suffering from stone to submit to operation. During the first, or bad period, all the operations are described as Lloyd's median, except one suprapubic for a 4oz. 18gr. stone. During the second, or good period, there were eight lateral lithotomies, six Lloyd's median, and two lithotrities, the one death occurring from peritonitis after lithotrity. During the third period there were 11 lateral lithotomies, one median lithotomy, three suprapubic operations, and two lithotrities.

Sex.—Only one female case is recorded amongst the 41 at the hospital. Of my 11 cases two were females. These proportions bear out the well recognized immunity of women from vesical calculus.

Nationality.—All appear to have been British colonists or natives of Australia, except two Chinamen.

Very little information as to the characters, weights, &c., of the stones removed can be obtained from the hospital records, only four being particularized out of 24 operations from 1861 to 1876. Two are stated to be uric acid with phosphate of lime coating, one of which weighed seven drachms. The third was a phosphatic, and the fourth an oxalate of lime calculus.

Of the remaining 17 cases from 1883 to 1893, 12 are thus particularized:—

1	Uric Acid	= 630 gr.
2	Phosphatic	= 70 gr.
1	Unnamed	= 2,160 gr.
1	Phosphatic, with uric acid nucleus	= 1 oz. 146 gr.
1	Oxalate of Lime	
1	Phosphatic deposit on bladder wall	
1	Oxalate of Lime	
1	Phosphatic	= 6 gr.
2	Phosphatic	= 164 gr. & 43 gr.
7	Uric Acid	= 56 gr.
1	Oxalate of Lime	= 66½ gr.
3	Phosphatic	= 80 gr., 30 gr., 22 gr.

The chief point elicited from the figures I have laid before you is the comparative infrequency of vesical calculus in this district, and that it appears almost wholly confined to elderly persons. The prime of life is, as we all know, almost exempt from this disease; but statistics elsewhere indicate its frequency amongst young children, especially in the form of the primary (or acid) stones.

I believe, from conversation with medical men in the various Australian colonies, that vesical calculus is on the whole a rare disease in this continent, though no statistical information on the subject on a large scale has yet come under my observation. Personally I adhere to Keyes' opinion that "*hereditary tendency to stone* lies at the bottom of its regional distribution and accounts for its geographical peculiarities. Generation after generation growing up in the same region, and intermarrying, would naturally reproduce and intensify any such physical trait." Those who may have brought to Australia with them the hereditary family tendency have probably married others with different tendencies, and so have failed to spread the habit; and the more general and mixed marriages which take place in a sparsely populated continent like Australia should constantly tend to diminish any constitutional tendency to formation of stone. On the other hand we have, throughout Australia, two important factors in the production of stone, which are largely used by its inhabitants, viz., beer and the sweet Australian wines, both of which increase the amount of uric acid.

It may have been observed that no suprapubic operation occurred amongst my cases. I am quite aware that this has been the fashionable operation of late years, and though I fully recognize its great advantages in appropriate cases, I am sufficiently aware of its disadvantages to refrain from performing it without being quite satisfied that it is the right thing in the right place.

Lithotrity is said by many high authorities, especially the Indian surgeons, to be the only proper operation for stone. No doubt to a surgeon constantly operating in this way, and having acquired all the necessary details of manual dexterity, it may be so. To the occasional operator it is not only a tedious, but a risky operation, for the inexpert hand may seriously injure the bladder, and a single fragment left behind will rapidly set up the disease in one predisposed to it, as well as keep up the local irritation.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

The 108th general meeting of the Branch was held in the Royal Society's Room, Sydney, on Friday, 7th July, 1893. Present: Dr. Ralph Worrall (President) in the chair, Drs. MacMurray, Wm. Chisholm, Lennhoff, Huxtable, Maher, Jenkins, Newmarch, Jas. Dick, West, McCormick, McKay, Abbott, Martin, A. Jarvie Hood, Shewen, Purser, Edwards, Thring, Fiaschi, Rennie, O'Reilly, Marano, Roth, Angel Money, Pockley, Crago, Foreman, Todd, Wright, Clubbe, Langhorne, Power, Bennet, Coutie, Sawkins, Twynam, Jamieson, Grace Robinson, and the Hon. Dr. Creed, M.L.C.; visitor, Dr. Hoggin.

The minutes of the previous meeting were read and confirmed.

The following new members were announced by the President:—Dr. Camac, Pyrmont; Dr. Sawkins, Prince Alfred Hospital; Dr. Neill, Double Bay.

Dr. McCormick exhibited a patient suffering from a tumour of the neck of a most peculiar and interesting nature.

Dr. Maher read some notes on "Cases of Paralysis of the Ocular Muscles, due to Nuclear Disease."

NOTES ON CASES OF PARALYSIS OF OCULAR MUSCLES.

By W. Odillo Maher, M.D., Honorary Ophthalmic Surgeon to the Sydney and St. Vincent's Hospitals.

The cases I have the honour to show the members of this Society to-night form an interesting group of paralysis of ocular muscles due to central disease. The first is a case of double ophthalmoplegia interna, the second one of double ophthalmoplegia externa, and the third one of double ophthalmoplegia interna and externa.

The following are brief notes of the cases:—

Case I.

Henry A., aged 27, consulted me in December, 1892. He stated that nine months ago his vision for near objects commenced to fail, and had, up to the time of his consulting me, gradually become worse. He contracted syphilis about five years previous to his noticing the defect in his sight.

On examination the pupils were found to be widely dilated. The right was about 7 millimetres in diameter, and did not contract either to light or accommodation; the left, 6·5 millimetres in diameter, and contracted only in a slight degree to light and accommodation. In the right the power of accommodation was lost, and in the left it was much enfeebled.

Vision.—Right Eye=$\frac{6}{6}$ J 16 C+4 D
J 1 at 30 centimetres.
Left Eye=$\frac{6}{6}$ J 6 C+2·5 D
J 1 at 30 centimetres.

Under specific treatment there was a slight improvement in the pupillary reaction and power of accommodation of the left eye. Vision=J 4 C+1·5 D J 1.

Case II.

Arthur G., aged 12, has been under my care since January, 1893. The family history was unimportant, except that there was no definite phthisical history, and nothing to justify any suspicion of inherited syphilis. Three years ago he became dull at school, and complained of occasional headaches and vomiting. About this time the upper eyelids began to droop. When seen by me he had double ptosis, the upper eyelids covering a little more than half the corneæ. The forehead was wrinkled by the action of the occipito frontalis, and both eyes were divergent. The pupils reacted well to light and fairly to accommodation. The amplitude of accommodation was good. Vision with each eye equalled $\frac{5}{5}$ J 1 at about 10 centimetres. The ocular movements were about the same in each eye. The upward movements were very limited, the inward absent and the downward slight, probably due to the action of the superior oblique muscles, and the outward, when tested as an associated lateral movement, were defective.

The case has been treated with iron and iodide of potassium, but I cannot say there has been any definite improvement.

CASE III.

Michael H., aged 29, who contracted syphilis three years ago, was first seen by me early last June. He had never suffered from any illness until 12 months ago, when he was laid up for five or six weeks with "inflammation of the brain." After this attack he enjoyed good health until three months ago, when he began to suffer from headaches, dizziness, impairment of speech and loss of memory. During the last three months he has lost flesh, and has had several fits. Two months ago he was in bed for a week with some cerebral attack, which he says was brain exhaustion. After this his near vision gradually failed, and he became unable to read ordinary print. The eyes were quite straight, and there was no drooping of the eyelids. A few weeks later he had a fit, which lasted about an hour, and during which he had to be held down. For a few days before the fit the left upper lid began to droop, but after the fit it drooped very much, and a few days later it had dropped altogether.

When I first saw him, three weeks after this fit, he had hesitancy of speech, partial right hemianæsthesia and complete paralysis of all the ocular muscles supplied by the left third nerve; complete paralysis of the intraocular muscles supplied by the right third nerve, and partial paralysis of all the extraocular muscles supplied by the same nerve. There was slight double optic neuritis.

Vision.—Right=$\frac{5}{9}$ J 14 C+4 D J 1.
Left=$\frac{5}{12}$ J 14 C+4 D J 1.

Under specific treatment the paralysis of some of the extraocular muscles has slightly improved, and the hemianæthesia, which at first was not very marked, has become less obvious.

Remarks.—The nuclei of the third nerve may be divided into an anterior group, from which the nerves which supply the intraocular muscles take their origin, and a posterior group from which the nervous supply of the extraocular muscles arise. These groups have each a separate vascular supply, and it is probably owing to this that nuclear disease is sometimes confined to the anterior, and sometimes to the posterior group.

In the first case the disease, which, no doubt, is syphilitic, is probably situated in the anterior nuclei of both third nerves, causing complete paralysis of the intraocular muscles on the right side and partial paralysis of the intraocular muscles on the left. For, according to Gowers, when there is paralysis of the internal muscles in both eyes, disease of the nuclei can be inferred with confidence.

In the second case the disease is situated in the posterior nuclei of both third nerves, for it is impossible to have any lesion or lesions other than one of the posterior nuclei that could produce paralysis of all the external muscles of the eyes and leave all the internal muscles free from paralysis. Again, muscles, which are associated in their actions—the two levator palpebræ and the two superior recti—are least affected. This alone would probably be sufficient to arrive at a diagnosis of nuclear disease. Another point of interest in this case is that in attempting associated lateral movement the external recti, which are supplied by the sixth nerves, act feebly, although the eyes when at rest are divergent. This also confirms the localization of the lesion, and shows that the disease not only affects the posterior nuclei of both third nerves, but also the posterior longitudinal fibres of the tegmentum of the crura, which lie near the middle line and close to the floor of the fourth ventricle, and which establishes communication between the nuclei of the third and sixth nerves. It is difficult to state what the nature of this disease is, but I am of opinion that originally it was a tubercular deposit, and that it has undergone absorption, leaving the nuclei permanently injured.

In the third case the disease is also nuclear. Complete paralysis of all the ocular muscles supplied by the left third nerve associated with complete paralysis of the right intra-ocular muscle and only partial paralysis of the right extra-ocular muscles could only be caused by disease of the nuclei; and the partial right hemianæsthesia shows that the disease has extended on the left side into the reticular formation of the tegmentum of the left crus. Again, the failure of near vision before the onset of ptosis and divergent strabismus proves the disease to be nuclear, and that the anterior nuclei were affected before the posterior.

To briefly summarize.—The first case is one of double ophthalmoplegia interna, due to syphilitic disease, most probably of the anterior nuclei of both third nerves; the second case one of double ophthalmoplegia externa, with defective associated lateral movements, due to disease of the posterior nuclei of both third nerves, and the posterior longitudinal fibres of the tegmentum; and the third case one of double ophthalmoplegia interna and externa, with slight right hemianæsthesia, due to syphilitic disease of the anterior and posterior nuclei of both third nerves, and of the reticular formation of the tegmentum of the left crus cerebri.

The HON. DR. CREED, M.L.C., read some notes on a "Case of Hemiplegia treated by Hypnotism." The patient was exhibited, and examined by the members.

RAPID IMPROVEMENT IN CASE OF HEMIPLEGIA FOLLOWING HYPNOTIC SUGGESTION.

By J. M. CREED, L.R.C.P., M.R.C.S.E.

ANNE INSULL, of 3 Margaret-street, Enmore, now aged 32 years—married 13 years—has one child nine years old; a native of Malvern in Worcestershire. Has been ten years in New South Wales.

For the last eight years she has, with the exception of about five months at the time of her seizure, drunk beer and spirits to excess. Until December, 1890, she had always been in average health, never having been laid up, except for a few days with ordinary ailments. In this month her husband tells me she was suddenly seized with a fit, as a consequence of which she was unconscious and was taken to the Prince Alfred Hospital, where she remained as an in-patient for three months, after which she was at the Carrington Convalescent Hospital for three weeks.

On coming home from the latter she was paralysed on the right side, her right arm and hand hanging powerless. She could only hobble about the house in consequence of the weakness of her right leg, treading, when she did so, on the side of the foot, but little of the sole bearing on the ground. She was never more than fifty yards away from home, and often when trying to get this distance she would fall in the street. Her speech was imperfect, and she could not see at all with her right eye.

Since about two months after leaving the hospital she has had epileptic seizures, which occurred generally at intervals of about a month, the time of attack being governed, her husband thinks, by the amount of drink she consumed. Since her return home, two-and-a-half years ago, she has had to depend on her friends and neighbours to perform her household duties, her husband having even to cut up her food, so that she could eat it with a spoon and fork, both of which were used with her left hand.

I found her to be in the condition described on her being brought to my consulting rooms on Monday, June 19, she having been helped into and out of the tram by a friend who came with her. Not with much expectation of being able to benefit her, but more with a desire to see what effect would follow the treatment in such a case, being convinced that any effect produced would be for good, I hypnotized her by the example of another subject, suggestion and one or two other passes over the eyelids, which I closed. She quickly became somnambulistic, sleeping and waking as directed. I suggested to her that she would find strength return to her hand; that the power to use it at will would quickly be re-established; that she would cease to walk on the side of her foot; but would tread on the flat sole, that she would loathe wine, beer, and spirits and would cease to take them; that she would sleep well at night and feel well in every particular. I did not specially mention the sight of the right eye. She returned on Tuesday and again on Wednesday, when I found she had much increased power in her arm and hand, whilst she used the sole of her foot in walking as much as her shoe, trodden over by her former gait on the side of it, would permit. I directed her to get new shoes at once, and on Thursday found she walked with her foot in the normal position, the bottom bearing evenly on the ground. On this day she walked from the Newtown-road, a distance of two miles, to my rooms, and spontaneously told me of the returning vision in her previously blind eye, the truth of which I tested by closing the other and requiring her to describe various objects in the room, which she did correctly. On this night her husband told me she used a knife and fork to eat her food, and was able to take the kettle off the fire with the lately helpless hand. On Friday the improvement was more marked, her gait, attitude, sight, and mental condition being all much better.

I have hypnotized her at intervals of two or three days to the present time, and, though she still limps, she walks strongly and without effort. Her hand is so improved as to be able to give a strong grasp, and she can oppose each finger to the thumb as she is told or desires to. With regard to her eye, Dr. Evans, who at my request has kindly examined her, reports that now she has normal acuteness of vision and a perfectly healthy eye when examined by the ophthalmoscope.

I have, through the kindness of Dr. Purser, the medical superintendent of the Prince Alfred Hospital, fortunately been able to obtain her clinical history when a patient in that institution from December 18, 1890, to March 10, 1891, under the care of Dr. Alfred Shewen, as honorary physician, the diagnosis being "hemiplegia, probably due to intercranial hæmorrhage."

Ann Insull, admitted December 18, 1890, discharged March 10, 1891; brought to hospital in a semi-unconscious condition; said to have had a fit five days ago. Since then she has been in present condition; can be roused with difficulty, but will not speak. There is complete right-sided hemiplegia. Urine and fæces are passed in bed; temperature 100; pulse and respiration slow; tongue dirty; urine acid, 1027; faint cloud of albumen. Under microscope there are to be seen amorphous urates; no casts. Husband states that she has been drinking heavily for three years. Her mother drank heavily, and two years ago had a similar attack to that of this patient.

The day after admission hydrarg. subchlor. grs. v were given, to be followed by haust. alba ℥iii every four hours until bowels were well opened.

December 23.—Remains in same condition. She has to be roused up to take food.

December 25.—Put on following mixture:—

℞ Potassii iodidi grs. v
Tr. digitalis ♏v
Ext. glycyritz liq. ♏xx
Aq. ad ℥i.—ter. in die.

December 27.—Slight improvement; temperature normal; still drowsy and will not talk.

January 1, 1891.—Improving; no return of power; speaks a little. She cannot remember the names of objects, although she understands what they are; answers yes or no fairly correctly. *Eyes examined*: Right disc blurred at edges; left eye normal; vision unimpaired.

January 9.—About same condition; no return of power in arm or leg.

January 14.—Better; talks a little; can move right leg slightly; arm powerless.

January 20.—Regaining power in arm; can close the hand and lift the forearm; leg improving; speaks more plainly; bowels somewhat constipated; to have ex. cascara sagrada liq. ♏xx night and morning.

February 2.—Improving markedly; has a fairly good grasp in right hand, and can lift the leg; also speaks much better.

February 24.—Got up to-day; can stand with assistance; speaks much better.

From this on she improved very much, and was discharged on March 10, being sent to the Carrington Convalescent Hospital.

The rapid recovery in this case from a state of almost absolute helplessness to a good capability of performing household and domestic duties, which she had not been able to perform for upwards of two years, is so marvellous that I considered it a duty to bring the case before the Branch as early as possible. The return of sight to the eye is especially noteworthy; in fact so much out of the ordinary course is it, that Dr. Evans, in his note to me, expresses considerable doubt as to her really having been unable to see with it during her long illness. With regard to this I would point out that she herself firmly believes she never saw with it, and her husband and friends were always of the same opinion, stating that if she wanted to look at anything to her right, which would have been visible had that eye been in its normal condition, she invariably turned her head and body so as to bring her left eye to bear on it, whilst she often knocked herself about by striking against objects as to which vision of the right eye would have guarded her.

With the clinical statement of her case whilst in the Prince Alfred Hospital and the history of her condition, between her discharge from that institution on March 10, 1891, and her visit to me, as given by her husband, her friends and herself, I think that there can be but little doubt of the correctness of the original diagnosis of her case as being hemiplegia due to hæmorrhage causing cerebral pressure.

As to the mode of her restoration, it is much more difficult to satisfactorily explain. It is certain that there was no sudden organic change consequent on hypnotism, but I take it the most probable explanation is that a gradual restoration, of the part of her brain suffering from pressure, to its normal condition, took place without its having recommenced to execute its function, and that hypnotic suggestion was potent in bringing this dormant power into activity. That the woman had been almost helpless, and believed herself to be blind in one eye for two and a-half years, is unquestionable, and that she is now almost completely restored is equally certain.

Dr. Shewen said that as his name had been mentioned in this case he would like to say that he did not remember the case distinctly. She, no doubt, came to the Alfred Hospital with paralysis, and after treatment improved, and was passed on to the Carrington Convalescent Hospital. He (Dr. Shewen) was of opinion that the case was one of hysterical paralysis. He would be loth to believe that she had suffered from any other than functional disease.

DR. THRING said he must congratulate Dr. Creed upon the success attained in this case, but must agree with Dr. Shewen that the case was one of functional rather than organic disease. No doubt the diagnosis at the time the patient entered the hospital was the correct one, that is, hemiplegia; but the disease to his (Dr. Thring's) mind must have been functional.

DR. ANGEL MONEY said the hemiplegic gait and mode of carrying the arm were still present. Hysterical hemiplegia very seldom, if ever, exactly imitated the common form of hemiplegia due to damage about the internal capsule. In his opinion the original diagnosis of hemiplegia due to cerebral hæmorrhage, made in the Prince Alfred Hospital, was the correct one. But there could be no doubt also that the patient had also had purely functional disturbance. There appeared to have been "crossed amblyopia." It had occurred to him that acute alcoholism could sometimes induce hemiplegia apart from recognizable vascular lesions, much as one knew occasionally occurred from uræmia. Such cases would get rapidly well, and leave no more trace behind than would hysterical hemiplegia.

DR. MAHER said he had been looking at the notes of the case, and at the time of admission to the hospital the vision is reported as being normal. That would then exclude the idea that the case was one of hysteria.

DR. CHISHOLM said he was inclined to agree with Dr. Money that the case was a mixed one, *i.e.*, one in which there had been a lesion and also at the same time functional disturbance. He could not say that this case had been improved by hypnotism. Hypnotism was being boomed at the present time, but he (Dr. Chisholm) would pin his faith to those who thought that hypnotism would not result in any good, but in a great deal of harm.

DR. HUXTABLE said that Dr. Creed could not think that a case of hemiplegia had been cured by hypnotic suggestion only. The case must have been one of functional disturbance. As Dr. Money had suggested, there might possibly have been a lesion at the same time as the functional disturbance.

The **PRESIDENT** (Dr. Worrall) said he was in accord with the previous speakers. The symptoms which had been relieved by hypnotism were hysterical, and in no way dependent upon a structural change. Those which *were* consequent upon an organic lesion still existed. Twelve years ago he had read before the Liverpool Medical Institute notes of a "Case of Complete Hysterical Hemiplegia," in which the application of metals, according to the method of M. Charcot, had caused a transference of the phenomena to the opposite side. This patient eventually recovered, and had hypnotism been practised it would no doubt have been credited with the cure.

DR. CREED, in reply, said he would refer the members to the statement he had made in his paper, in which he said that he did not assert that any sudden "organic change had been set up by hypnotic suggestion," but it was evident that a very effective stimulus had been given to the dormant function of that portion of the brain which had been disabled by the pressure set up by intercranial hæmorrhage two and a half years since. That the woman for this period had been a helpless cripple, unable to walk except for the shortest distances with much difficulty, and was unable to use her right hand, is shown by the statements of herself and her friends, and also by his own examination on the date of her first visit to him. It is also manifest that the woman herself and her friends had no doubt that she was without power of vision in her right eye. To them it is a matter of no interest whether her helplessness was dependent on an existing organic lesion or on a disordered function, she was equally a burden in either case, and had continued to be so with no apparent improvement or hope of improvement since her discharge from Prince Alfred Hospital in March, 1891. He submitted that such a sudden and effective recovery from a disabling malady, even if "only functional," as is so impressively suggested by some of the late speakers, is a subject of much interest, and shows that hypnotic suggestion may be a potent adjunct in the treatment of disease.

DR. MCKAY exhibited a number of diagrams showing the method of Tait's perineal operation, and explained its advantages.

DR. FOREMAN said the members were obliged to Dr. McKay for his interesting explanation of the diagrams, but he could not agree with the conclusions of Dr. McKay, as he (Dr. Foreman) was in favour of Bantock's method of operation, as there is nothing more simple, and in any case of perineal rupture he always used it. Of course it may be modified to suit the case, sometimes an eighth of an inch of the flap on either side is snipped off (just to give a better surface). Sometimes it is sewn up. There is certainly very little difference in the operations, and there is certainly very little chance of failure when Bantock's operation is done. He (Dr. Foreman) had been doing the operation for some time, and had seen cases where it had not been possible to tell after a year or so that the perineal had ever been ruptured.

The **PRESIDENT** (Dr. Worrall) said Dr. McKay deserved the hearty thanks of the members for having illustrated by these excellent plates what was undoubtedly the most popular, and in his (the President's) opinion the best operation for the majority of cases of ruptured perineum. The plates in the text books of this operation were very misleading, especially that in Hart and Barbour, which had stood greatly in his own way in arriving at an understanding of the exact technique. Several times he had begun the operation by flap splitting, but had had to cut off the flaps and finish the operation by the Emmett method, owing entirely to that plate. Persevering, however, he had at length, about five years ago, hit upon the proper details, and since had performed the operation in a large number of cases with invariable success, with the exception that in two instances a small abscess formed and left an anal recto perineal fistula, of which, however, the patients were unconscious. These slight accidents were due, no doubt, to some fault in the technique of the operator, and not to the operation.

With regard to the question of rapidity of performance, he thought it was a mistake to attempt too much in this direction. He remembered reading the discussion on Mr. Tait's paper before the British Gynæcological Society, and that one member described how he had had to do the operation over again after Mr. Tait, simply because sufficient care had not been taken in inserting the sutures. He (the President) always inserted superficial horsehair sutures in addition to those described by Dr. McKay. It might not be out of place to urge the great importance of closing all wounds of the perineum at the time of rupture. The students attending his clinic at the Sydney Hospital had remarked upon the very large number of cases in which the perineum had been more or less extensively lacerated, giving rise to the ill results for which the patients had sought relief.

The Hon. **DR. CREED** then read some notes on a "Case of Dipsomania treated by Hypnotism."

A CASE OF DIPSOMANIA CURED UNDER HYPNOTIC SUGGESTION.

By J. M. Creed, L.R.C.P., M.R.C.S.E.

◆

The case of which I am about to inform the Branch is but one of many within my experience. From the nature of the malady treated it is but rarely, however, that the circumstances permit report with sufficient minuteness to render the account of professional interest. In such cases it generally happens that the more successful the result the greater the reluctance of the patient, frequently a person of social standing, to permit the incidents of his disease and its treatment to be made the subject of discussion; and without the subject's consent, such action, even if the history is given under a pseudonym, is quite unpermissible.

In this instance, however, the gentleman treated feels it a duty to permit the particulars to be published, as being likely to convey useful information to other victims of the same curse. He has consequently furnished me with an autobiographical history of his trouble, which, with the statement of his physical condition kindly added by Dr. Jamieson, will place the meeting in full possession of the facts relating to the case.

Statement of the Patient.

"For twenty-five years I have habitually taken alcohol in excess, and during the last fifteen in such quantities as to have been extremely detrimental to my health, both mental and physical. My calling is one which requires me to exercise much thought to carry it on with success, and as a consequence of my indulgence in spirits I have during this period felt myself getting gradually less capable of satisfactorily doing my work. In fact I have been only able to do so by the repeated help of alcohol taken frequently during my hours of labour, in addition to excessive quantities after they had ended. This craving for stimulants I have found to be irresistible, and though fully conscious that I was blighting my social and professional prospects, which have been very bright, I could not permanently refrain. It is true that during the latter years I have on three occasions absolutely abstained from drinking for a few months at a time, but I did so with the greatest difficulty, and had to keep a constant watch upon myself to control my intense longing for stimulants, to which I was only kept from yielding by influences which exercised the greatest command over me. On each of these occasions I suffered what I can only describe as "torture" when refraining, which made me irritable in the highest degree and incapable of sustained mental effort. I could not sleep, was nervous in the extreme, and my general health was but little, if any better than when I was drinking, while in spite of all my efforts I on each occasion relapsed into my old habit.

This went on until April 4 of this year, on which date I did my last work prior to my recovery. On this day I consulted Dr. Jamieson, who, after due consideration, strongly pressed me to submit to treatment by hypnosis. This, though at first reluctant, I consented to do, and accordingly on May 18 I accompanied Dr. Jamieson to Dr. Creed's residence. On this day I could only with much assistance get into or out of the cab, and could only walk, with the support of his arm and a stick, from the vehicle to the house, being unable to do more than drag my feet, hardly lifting them from the ground. I had, as always, slept but little the night before, and was nervous and apprehensive to an extreme degree, as I had been drinking freely to that moment.

After hypnosis I returned home, feeling calmer and less nervous, and I slept well the whole of the next night. I submitted to hypnosis daily until the 24th, when I was prevented by having to attend a public function, at which I walked a considerable distance without assistance. Since my first hypnosis I have lost desire for liquor, and have refrained from taking it without difficulty. I have slept soundly, have ceased to be nervous, and have felt wonderfully well, both mentally and physically. On the 25th, 26th and 27th I was again hypnotized, and subsequently have undergone the same treatment at intervals of two or three days to the present time.

On May 25 I commenced work of the highest importance, which I carried out to my own satisfaction as well as to that of the high authorities by whom I was employed. I have been able to fulfil my engagements with as much ease and to as good effect as in my best days, and my capability for, and satisfaction in, classical studies have thoroughly returned, the reading of Aristotle and Plato in the original affording me my old mental gratification.

On the third day, though I had no desire for it, apparently as a matter of habit, I poured out a glass of whisky, but on putting it to my mouth I found it had become so nauseous to me that I set it down untasted; and since this time I not only have taken no liquor, but have not had the slightest desire for it, the feeling of depression and craving, which was never absent during my former transient periods of abstinence, having entirely left me, so that I do not find it necessary to exercise any will power to refrain. I have slept well every night; in fact until impressed to rise at 7.30 a.m. I frequently overslept myself. I am now free from nervousness, am mentally strong and capable of sustained intellectual work, and have ceased to be irritable. My physical health is good, I eat and digest well, and have recovered power in my legs, so much so that I can walk two miles quickly and without effort.

Another circumstance worthy of remark is that I have been in the habit of smoking to excess. This, under hypnotic suggestion, has ceased, and I do not care for more than, say two smokes a day, which I thoroughly enjoy, any beyond these having become extremely distasteful."

NOTES BY DR. SYDNEY JAMIESON.

Condition of Patient on first Visit (4th April).—"Complains of inability to eat, with great nausea and vomiting of glairy, sticky mucous in the morning, also of increasing loss of power in the lower extremities. The weakness in the legs has been progressing steadily for some weeks past; tongue very flabby and tremulous, indented by teeth at margin and thickly coated with creamy white fur; a general want of muscular tone throughout the muscular system, but especially marked in the lower limbs; has of late suffered considerably from insomnia; knee-jerks absent; superficial reflexes with difficulty elicited; calf muscles painful to grasp, and very wanting in firmness; complains of occasional attacks of pain in the calf of a crampy nature. His gait is somewhat unsteady and very feeble. He can walk only with the assistance of a stick, or by holding on to the articles of furniture about the room. When placed on his back it is noticed that there is well-marked ankle-drop. In walking the toes drag along the floor, and he has great difficulty in raising the fore part of the foot from the ground. There is no actual wrist-drop, but the extensor muscles of the wrist are very flabby, and have lost power considerably. The heart sounds are somewhat feeble and slightly irregular in volume and rhythm; no murmur heard over præcordia. Liver extends about an inch and a-half below costal margin; a slight trace of albumen in urine, but no tube casts.

I ordered a draught of bromide of potash and chloral to be taken at bedtime, and a mixture of digitalis, liq. strychniæ and acid. phosph. dil. thrice daily after meals. I also applied Faradism to the calf muscles every morning, together with massage, for about 10 minutes.

Under this treatment he speedily improved, and seemed to be doing well, when, on May 17, I was informed by his friends that he had relapsed into his old habits, and was as bad as ever.

I visited him next day, and found his condition much the same as on my first visit. Being very disappointed with the permanent effects of my previous line of treatment, I persuaded my patient to try the effects of hypnotism.

On May 18 I accompanied him to Dr. Creed's house. He was so weak in the legs that I had to lift him out of the cab, and had to support him on my arm till we got to the house. He was only partially hypnotized that morning, but on our leaving the house he expressed himself as feeling somewhat the better for it.

I then left the case entirely in Dr. Creed's hands, and about a fornight later visited him, when his condition was as follows:—Appetite good; tongue clean and healthy-looking; sleeps well every night; has lost all desire for alcohol; walks firmly and without assistance; muscles of calf firm, and not painful to grasp; no ankle-drop; knee-jerk and superficial reflexes elicited with ease; says that he feels greatly improved in every respect, and is capable of doing his work to his entire satisfaction.

The rapidity with which the patient recovered is, in my opinion, the most remarkable feature of the case. The only other therapeutic agents employed since May 18 were massage and faradism on four occasions, with an occasional dose of fluid extract of damiana. I have seen the patient this afternoon, and find him mentally and physically in a thoroughly satisfactory condition, having been employed all day on work of a highly-intellectual character, requiring special vigilance for its successful conduct."

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

THE Fourteenth Annual Meeting of the Branch was held at the Adelaide Hospital on the 6th July, 1893, having been postponed from the proper date, June 30. Present: The President (Dr. Way), Vice-president (Dr. Poulton), Treasurer (Dr. Corbin), Secretary (Dr. Lendon), Drs. Archer, Swift, Stirling, Hayward, Clindening, McIntosh, J. A. G. Hamilton, Brookes, T. K. Hamilton, J. C. Verco, Giles, Michie, Teichelmann, Martin, Cavenagh-Mainwaring, Evans, Borthwick, Harbison, Todd, Perks, A. A. Hamilton, R. Stewart, Gault. Also as visitors: Hon. A. Campbell, M.L.C.; Dr. Abernethy, of Melbourne; Dr. Gerald Hayward, and several undergraduates.

LIVING EXHIBITS.

DR. POULTON showed two men on whom he had recently performed operations for the radical cure of hernia (Barker's method), and a silk suture which had been used inadvertently in one of them, causing scrotal suppuration and a sinus. This never follows the routine use of kangaroo tendon. He also showed a man with very early recurrence of secondary epithelioma in glands after removal of lip and lower jaw, and a case which had recovered after extirpation of rectal cancer by excision.

DR. VERCO showed a man of fifty years of age, whose scrotum presented some four and twenty tumours varying in size up to that of two or three large peas. The larger were lobulated, the smaller were flat. They very closely resembled the chalk stones of gout when threatening to come through the skin. Their contents were putty-like or cretaceous; insoluble in acetic acid or in liquor potassæ; partly soluble in strong nitric acid with effervescence. There were no crystals of urate of soda, nor any definite organic histological elements under the microscope. They were probably old sebaceous tumours. They dated from childhood. There were no tophi anywhere, nor any evidences of gout.

PATHOLOGICAL EXHIBITS.

DR. LENDON exhibited specimens of papilloma vesicæ, which had recurred in the case published in *The Australasian Medical Gazette* (vol. x., p. 174). The bladder had been opened above the pubes a second time, and the patient had made a good recovery, although the peritoneal cavity was opened unintentionally.

DR. BORTHWICK exhibited: (1) Pure cultivations of strephtococcus pyogenes, and of staphylococcus pyogenes albus from Dr. Way's case of puerperal septicæmia. (2) Stained specimens of same microbes under the microscope.

On the motion of Dr. Giles, seconded by Dr. Michie, the minutes of the last meeting (May 25), which had already been published in *The Australasian Medical Gazette*, were taken as read, and confirmed.

DR. J. C. VERCO moved, and Dr. Todd seconded, "that the Annual Report of the Council be taken as read, and adopted."

ANNUAL REPORT.

The Council is pleased to be able to report that there are now 114 members on the roll, as against 103 at this time last year, fifteen additional members having been elected, and four, who have left the colony, having resigned. Although at the time of his death Dr. Davies Thomas had ceased to belong to the Association, his prolonged illness and untimely death evoked much sympathy from the members, who are not unmindful of his services to the Branch as a former President, and of his valuable contributions to their proceedings.

The Council further reports that the average attendance at the nine ordinary meetings has been 24·6, as compared with 20·5 in the preceding year.

The question of the admission of women to the membership of the Branch, to which some opposition was raised, was discussed at a largely attended special meeting in November, there being no less than 40 present, exclusive of visitors. The President's ruling that the Branch had no power to pass a by-law excluding women from membership of the Branch was supported by the majority of those present, and the ruling has since been confirmed by the authorities in London; at the same time it has been decided to postpone the practical application of this ruling until after the new by-laws of the parent Association, which are expected to be brought forward at the Annual Meeting at Newcastle, have appeared.

At the November special meeting the revised by-laws, as framed by the Council, met with the approval of the members of the Branch, and were adopted.

At another specially convened meeting in March, Dr. T. K. Hamilton was afforded an opportunity of bringing under the notice of the Profession the facts of the case which led to the recent action at law, in which he appeared as the defendant; and the meeting unanimously passed a vote of sympathy with Dr. Hamilton in having to contest what it considered a groundless and vexatious suit.

The vexed question of advertising by medical practitioners, and the limits to be imposed upon it, formed the subject of the earnest consideration of a special subcommittee, whose report was ultimately adopted.

As regards the medical work of the Branch, a special evening was set apart for the reading of papers on "Hepatic Abscess," which, if they did not give rise to much discussion, were the means of placing on record a valuable collection of cases for future reference. It would be invidious to particularize any of the other numerous and valuable contributions which members have made in papers or by the exhibition of cases and pathological specimens, but the Council has again to recognize its indebtedness to Professor Watson for the demonstration of much interesting pathological material.

The Council decided to discontinue the reprints of its transactions from *The Australasian Medical Gazette* on the score of expense. Its financial position is otherwise sound, as will be seen by reference to the balance-sheet.

(Signed) E. W. WAY, President.

DR. STIRLING drew attention to the last paragraph, and expressed regret that the reprints of the transactions had been discontinued.

DR. T. K. HAMILTON and others shared this regret.

The **PRESIDENT** and the Secretary explained the reasons for their discontinuance, and reminded the meeting that the action of the Council had been announced at the time to the members of the Branch, who did not then take exception to it.

Finally the matter was referred to the new Council for re-consideration and report to the Branch.

The Annual Report was then adopted.

The Treasurer's statement was received, showing a balance in the bank of £220 12s. 8d. to the credit of the Branch.

There being no opposition, the following members, who had been nominated to their respective offices and had assented to act, were formally elected:—Vice-president, Professor Watson; Treasurer, Dr. Corbin (re-elected); Secretary, Dr. Swift; Ordinary members of Council, Drs. Perks, R. Stewart and A. E. Wigg.

Before delivering his address, the retiring President (Dr. Way) alluded to the services rendered to the Branch by the retiring Secretary (Dr. Lendon) during the past two years; and on the motion of Dr. A. A. Hamilton, seconded by Dr. Stirling, it was ordered that this expression of the appreciation by the Branch of Dr. Lendon's services should be entered upon the minutes.

DR. LENDON briefly thanked the members for their kind remarks.

DR. WAY then delivered an address on the subject of

MODERN RESEARCH AND CHILD-BED FEVER.

PRESIDENTIAL ADDRESS BY E. W. WAY, M.B.,
LECTURER ON OBSTETRICS AND DISEASES OF WOMEN, UNIVERSITY OF ADELAIDE, AND SURGEON TO THE DEPARTMENT FOR DISEASES OF WOMEN, ADELAIDE HOSPITAL.

◆

GENTLEMEN,—I may be allowed before proceeding to deal with the subject upon which I intend to address you, to say how highly I have, during the year that is now past, appreciated the honour of the position of President of the South Australian Branch of the British Medical Association. It is a position to which anyone may honourably aspire; and although its duties are by no means onerous, it yet lays upon the occupant of the chair the necessity of sustaining the reputation gained by the Society by the energy, intelligence and brilliancy of its previous presidents.

Whatever the subject of the annual address of the President may be, it may fairly be esteemed an opportunity of gathering together the striking results of some of those researches which are now being everywhere pursued by members of our profession. Naturally you will expect me to deal with a subject in which my experience brings me some aid in handling. Lately, several cases of puerperal septicæmia have come under my care in the hospital, which have caused me much anxiety and demanded my deepest attention. I propose then to turn my reflections upon, and study of, these cases to practical account by making them the basis of my present remarks. I do not intend to dwell upon the history of the disease as represented to us from the earliest times to the present, nor to follow the various theories that have been advanced from time to time to explain the different aspects and conditions found in puerperal fever. My intention is to dwell more particularly upon its etiology, and upon the means that modern research has placed within our reach to deal effectively in preventing the occurrence of so serious a disease.

When we consider the highly-contagious nature of the disease, it is remarkable that this characteristic should have escaped recognition so long. Yet the first references to the infectiousness of puerperal fever are found only in the writings of medical authors of the end of last century. White, Clarke and Leake, all allude to this feature, but it was Gordon, of Aberdeen, who first gave practical proof that puerperal fever may be propagated from case to case. Let me quote his own words :—

"That the cause of the disease is a specific contagion or infection I have an unquestionable proof. When the puerperal fever is frequent and fatal, that is, when it prevails as an epidemic, the cause has been referred to a noxious constitution of the atmosphere. But that the cause of the epidemic, puerperal fever, was not owing to a noxious constitution of the atmosphere I had sufficient evidence, for if it had been owing to that cause it would have seized women in a more promiscuous and indeterminate manner. But this disease seized such women only as were visited or delivered by a practitioner or taken care of by a nurse who had previously attended patients affected by the disease. In short, I had evident proofs of its infectious nature, and that the disease was as readily communicated as that of the smallpox or measles, and operated more speedily than any other infection with which I am acquainted. With respect to the physical qualities of the infection, I have not been able to make any discoveries, but I had evident proofs that every person who had been with a patient who had puerperal fever became charged with an atmosphere of infection which was communicated to every pregnant woman who happened to come within its sphere. The disease was not peculiar to any particular constitution or temperament, but promiscuously seized women of all constitutions and temperaments; for the strong and the weak, the robust and the delicate, the old and the young, the married and the single, those who had easy, and those who had difficult labours, were all equally and indiscriminately affected. It prevailed principally among the lower classes of women, and on account of my public office and extensive practice in midwifery, the most of the cases came under my care. But women in the higher walks of life were not excepted when they happened to be delivered by a midwife or physician who had previously attended any patients labouring under the disease.'

He then gives a table of 77 cases coming under his care, and gives the details of how the infection was carried to each case. "It is a disagreeable declaration for me to mention that I, myself, was the means of carrying the infection to a number of women," and further on he says : "I arrived at that certainty in the matter that I could venture to foretell what women would be affected by the disease upon hearing by what midwife they were to be delivered, or by what nurse they were to be attended during their lying-in, and almost in every instance my prediction was verified."

If more convincing evidence were necessary as to the communicability of the poison from case to case, let me quote the statement of Roberton, of Manchester, in reference to an outbreak of the disease which occurred in the Lying-in Charity connected with St. Mary's Hospital in that city :—

"Mrs. A. B., a midwife in great practice amongst the patients of the Charity, had, on Dember 4, 1830, delivered a poor woman, who soon died with symptoms of puerperal fever. From this date to January 4 inclusive—exactly one month—this midwife delivered 30 women residing in different parts of an extensive suburb, of which number 16 caught the disease, and all of them ultimately died. These were the only cases of puerperal fever which had recently occurred in connection with the Charity. The midwives, commonly 25 in number, then delivered on an average about 90 women per week, or nearly 380 in a month. Of this number, delivered in the month in question, none had puerperal fever, except the patients of Mrs. A. B. Yet all the time this woman was crossing the other midwives in every direction, scores of the patients of the Charity being delivered by them in the very same quarters where her cases of fever were happening."

I could go on detailing numbers of similar outbreaks to show how the disease can be transferred from one patient to another, but it is unnecessary for me to do so.

The origin of puerperal fever, however, is not confined to this narrow limitation. It easily springs from other diseases associated with what we now regard as septic accompaniments. Charpentier records the case of the wife of a physician who was convalescing, when on the 17th day her husband, who had just returned from visiting a patient with a diffused phlegmon of the thigh, had the unfortunate thought of examining her to learn whether the uterus had returned to its normal condition. She was seized with rigors the next day, followed by all the phenomena characteristic of purulent affection, and died on the 23rd day after labour.

An illustration is also afforded by Siredey, who mentions the case of a French physician who had attended 800 women without an accident. He was seized with a suppurating adenoma of the neck, for which he used a drainage tube as a seton, and within the next three weeks three women whom he attended were seized with puerperal fever.

In America we had the terrible experience of Dr. Rutter, of Philadelphia, many years ago. He had nearly 70 cases of puerperal fever within the period of 12 months, and yet all the other patients of the practitioners in the neighbourhood were free from the disorder. It is stated that all his efforts were futile to free himself from the contagious influence. Though he bathed, changed his clothing, shaved off his hair and wore a wig, the disease still dogged his footsteps. Though he went away from his practice for a time, his next patient, though delivered with an easy labour, fell a victim to the disorder. No wonder that Siredey, in discussing this matter referred to him as a "walking pestilence." The explanation was subsequently forthcoming : all this time he was suffering from an ozœna. That he undoubtedly carried the source of the infection with him is now understood, since the presence of septic bacteria in the muco-pus from similar cases had been demonstrated. The source being unknown at once explains the futility of the endeavours which Dr. Rutter made to free himself from the contagious element. I need not quote further illustrations to show that puerperal fever may arise from other diseases. Many outbreaks have been traced to cancer of the uterus in other subjects, as well as to other disorders in which foul and suppurating discharges existed.

But in addition to puerperal cases, and to morbid secretions from other disorders, it is now understood that the poison can be easily transferred from the dead body, either of infectious or non-infectious cases, to the lying-in room. It was Semmelweis who first pointed this out in 1847. He made the startling statement that puerperal patients were chiefly attacked by puerperal fever when they had been examined by physicians who were fresh from contact with the poisons engendered by cadaveric decay; that fever ensued in the practice of those who after *post mortem* examinations washed their hands in the usual manner, whereas no fever, or but few cases of disease, followed when the examiner had previously washed his hands in a solution of chloride of lime. The account of his investigations is so interesting that I would, if time had permitted, have given you a more lengthened reference to the results he obtained. His views, however, were not unchallenged, but in the face of insult, ridicule, and abuse he maintained his opinions with great persistency. His statements gave rise to the most bitter opposition, which clouded the end of his life. But before he died he more thoroughly elaborated his great discovery by an extended experience and ripened judgment. In 1864 he published his work on the "Etiology and Prevention of Child-bed Fevers," in which he no longer maintained the exclusive position he had formerly taken up, but now urged that puerperal fever had a wider origin and sprang from the absorption of decomposing animal matter of all kinds. He believed the sources of the infection to be first from the dead body, regardless of age, sex, or disease. No matter whether the latter be of puerperal or non-puerperal origin, the virulence depending on the stage of decomposition; secondly, from diseased persons whose malady is associated with the decomposition of animal tissue, no matter whether the affected person suffers from child-bed fever or not, the decomposing matter alone furnishing the product from which the infection is derived; thirdly, from physiological animal substances of all kinds in process of decomposition. As carriers of infection he regarded the fingers and hands of the physician, midwife, or nurse, sponges, instruments, soiled clothing, the atmosphere, and anything defiled with decomposing matter and then brought into contact with the genitals of a woman during or after labour. Absorption, he believed, takes place from the inner surface of the womb or from the wounds and abrasions of the genital canal. In fact to Semmelweis puerperal fever was no specific infectious disease in the same light in which smallpox, typhus, and other specific fevers may be regarded. It was essentially a wound fever. Even before this time, and shortly after Semmelweis had made his first declaration, Sir James Simpson published a remarkable paper on the "Analogy between Puerperal and Surgical Fever." The state of a woman after delivery he compared with that of a patient after an operation. In either case a wound was present capable of absorbing impure matter; in the one the wound made by the knife, in the other the raw surface left by the separation of the placenta, as well as the tears and abrasions of the cervix, vagina and perineum that were commonly added. So also he strikingly illustrated the close resemblance in these disorders as betrayed by the symptoms and the pathological lesions that accompany them. This paper, followed as it was by the more extended and elaborate proofs brought forward by Semmelweis, may be said to have started a new era in our knowledge of the true nature of puerperal fever, the outcome of which is to look upon the puerperal poison as one of a septic character pure and simple, and the nature of the disease to be nothing more or less than septicæmia occurring in the puerperal state. Puerperal fever is therefore not a disease peculiar to lying-in women, a precisely similar affection, as proved by various authorities, is met with in virgins, the new born babe, and in the wounded of either sex. The primitive local disease becomes general through the extension of the morbid process to the cellular tissue, by which its area of diffusion becomes greatly increased, or else is transported by the blood or lymph to the various organs of the body.

Let me by way of illustration quote a passage by Schroeder which very clearly puts forward the similarity that exists between the septicæmia of surgical practice and that encountered in obstetric work. It is so strikingly set forth that this must be my apology for the length of the quotation.

"In order to understand distinctly the manner after which infection occurs in the puerpera, it must be compared with one of the frequent varieties of infection which occurs in other parts of the body. When, at an autopsy, infectious materials from the cadaver come in contact with a slight abrasion on the finger, we witness, according to the amount absorbed, and especially according to the individual predisposition, different phenomena. Either the point of contact alone is affected so that there results suppuration of long duration, or else the inflammation extends to neighbouring parts, and there result inflammatory affections of the lymphatic vessels of the arm, and an abscess in the subcutaneous cellular tissue as well as in that between the muscles. The entire system is not otherwise affected than it is in case of other local inflammatory affections: that is to say, the individual has only a moderate fever. Similarly, in a puerpera, as the result of infection of an abrasion on the vulva, there may arise an ulceration which heals quickly; or else an inflammation, which, following the course of the lymphatic vessels and the cellular tissue, may extend much further and eventuate in a suppurative lymphangitis and an exudation around the uterus and the vagina. The entire organism is not much more affected than in case of other local inflammatory diseases, and the fever is identical with that which accompanies such affections. If, however, the infection of the finger by the cadaveric poison is more intense, then, at the end of 24 or 36 hours, we see serious general phenomena develop. These are characterized above all by elevation of temperature entirely out of proportion to the local affection—a fever which imperils to a high degree the functions of the entire organism. Death may occur with lightning-like rapidity, and, *post-mortem*, aside from slight alterations in the blood, we may find no changes visible to the naked eye. The individual has succumbed to septicæmia.

"In other instances we find acute degeneration of the large abdominal glands and of certain portions of the voluntary muscles, or else pleuro-pneumonia, peritonitis or arthritis. The individual has succumbed to ichoræmia.

"In other instances, finally, there are thrombi in the veins near the wound. These thrombi are decomposed, and small portions are carried by the vessels and deposited usually in the lungs, and then give rise to infarctions and abscesses. The individual has succumbed to pyæmia.

"In an exactly similar way, when infection occurs in the puerpera, are the local affections thrown into the background. At the end of 36 hours the temperature rises to a high degree, with or without a chill, and the same fever affects her as we have seen may affect the individual suffering from cadaveric poison. The parallel need be carried no further, since the same phenomena occur here, step by step, even as we have just described in them.

"Further still, even in case of simple wounds, the entire system may be touched, and this is what is called traumatic fever. But although the ordinary traumatic fever is evidently the result of decomposition of the inflammatory products within the tissues—products which are carried in the circulation, and which, consequently, give rise to what may be termed a fever from absorption—and although this fever scarcely presents what may be termed specific characters, by which it may be distinguished from that due to infection, the essential characteristic of non-affected wounds is precisely their local nature; that is to say, the inflammatory process does not extend beyond the tissues which limit it. It remains circumscribed, and the fever, even though it presents differences in intensity according to the individual, never exceeds the degree which it usually attains in local inflammatory affections. If, on the other hand, the wounded surface is infected, either by auto-infection or by hetero-infection, the inflammatory process may still remain local, since the infectious materials are isolated from the remainder of the organism, owing to the transformation of the wound into an abscess incapable of resorption; but if this salutary abscess, so to speak, does not form, or not in time, the inflammation may spread to the neighbouring tissues. If it extends superficially along the skin or the mucous membrane, it manifests itself as an erysipelas. In other instances it penetrates more deeply by following the connective tissue, and we may have an abscess. The entire organism may, in these cases, present nearly identical phenomena to those which accompany local inflammatory processes; but very frequently the temperature rises higher; the pulse becomes much more frequent than one would expect in case of a purely local affair; and this is proof that the excretions from the infected site have reached the blood. Again, when the fever is moderate, we may always doubt if the entire organism is not affected by septicæmia or ichoræmia, as the result of the nutritive inflammatory troubles which are present in all the organs.

"What, therefore, we must consider as peculiarly characteristic and dangerous in infected wounds, is the great tendency of the inflammation to extend by continuity to other parts. In the puerpera the state of the cellular tissue around the uterus is an indication as to whether the inflammation of the vulva or cervix is local or progressive. Exudation in this tissue, in our experience, always depends on the infection of the puerpera or the non-puerpera. If, during delivery, there occurs a tear of the upper part of the vagina, when there is no infection it is always the parts immediately in contact with the borders of the wound which inflame. The sides of the uterus are neither tumefied nor sensitive, while even in case of simple erosion of the vaginal mucous membrane, if there be infection, we may usually determine the fact that the inflammatory process has spread into the cellular tissue which exists to the sides of the uterus."

Although the evidence produced was sufficient to convince many of the possibility of living organisms still undiscovered at that time being the essential cause of these processes, yet many remained sceptical and demanded that theoretical assertions should be corroborated by exact proof. Even in my own time as a student, when following the earlier work of the illustrious founder of the antiseptic method of treatment, I can recall the ridicule, doubt and scorn with which his views and practice were received. "Show me a germ and then I'll believe it." "Have you ever seen a germ?" were common remarks which usually clinched an argument between a Listerite and his opponent. In no part of the world at the present day would such a confession of ignorance be made. The active part taken by mirco-organisms in the various forms of disease is now universally recognised. We can now understand how the disease may be carried from case to case by the doctor or nurse. The subtle essence of the cadaveric poison is revealed. The infectious element that emanates from certain diseases is known, and the success attending even primitive methods of disinfection are capable of explanation.

Of late years bacteriology—the study of the nature and form of the low forms of vegetable life which are comprised under the term bacteria—has advanced by leaps and bounds, and may be said to have completely revolutionized our knowledge of surgical diseases. Our views as to the origin of all wound affections and complications, and most of the acute and inflammatory diseases have changed with the light thrown upon them by the revelations of enquirers in this new field of research. It has been remarked with much truth that during the past 20 years there has been more real advance in surgical pathology than during the 20 centuries preceding them. Not only have these diseases enabled us to recognize more clearly the essential nature of various surgical diseases, but also to apply principles of treatment which has brought about a far nobler result in that it has enabled us to prevent an enormous sum of disease as well as to effect a vast saving of life and suffering.

Bacteria, or micro-organisms, or microbes, as they are variously called, belong to the lowest order of the vegetable kingdom. The term comprises the various minute forms, whether they be rounded, rod-shaped, threadlike or spiral. Each single developed organism is a cell, containing within its wall of cellulose a speck of protoplasm or vegetable albumen. The chief varieties are the micrococcus or globular form, the bacillus or rod-shaped, and the spirillum or spiral-shaped. All these organisms multiply by fission, while a few of the bacilli and spirilla also undergo germination, spores being formed within their cells before they perish. Their rapidity of multiplication is so rapid as to excite in us feelings of surprise and wonderment. Klein remarks: "We have already seen that these minute organisms are endowed with great power of movement and locomotion—a fact on which stress has been laid in connection with their rapid diffusion through fluids; but an equally important factor in the bringing about of this rapid diffusion is their extreme prolificness. If they can obtain sufficient food, and if the food is exactly the right nature, the rate at which bacteria will grow is marvellous. From actual experiment it has been found that if, in a cubic centimetre of any specimen of water we find, say, a couple of hundred organisms, on standing for 24 hours the number will have risen to about 5,000 per cubic centimetre; at the end of another 24 hours to 20,000, and on the fourth day they are uncountable. Cohn calculated that a single germ could produce by simple fission, as above described, two of its kind in one hour; in the second hour they would be multiplied to four, and in three days they would, if their surroundings were ideally favourable, form a mass which can scarcely be reckoned in numbers, or if reckoned could scarcely be imagined—4,772 billions. If we reduce this number to weight, we find that the mass arising from this single germ would in three days weigh no less than 7,500 tons. Fortunately for us they can seldom get food enough to carry on this appalling rate of development, and a great number die for want of food, and because of the presence of other conditions unfavourable to their existence."

The distribution of bacteria is very wide—in the air, in the soil, and in the water, on the surface of our bodies, in our mouths, in our hair, and in our intestinal canals, and also in our clothing. In the blood and in the various organs of the body they are not found in a state of health; but some forms at times, under favouring conditions, are able to gain an entrance into these structures, and by their growth give rise to disease. These forms are spoken of as *pathogenic* or disease-producing bacteria, while those concerned in the production of pus are termed *pyogenic*. Others which are chiefly associated with the process of decomposition, finding in dead organic tissues their most suitable soil in which to obtain food for their growth and for their vital functions, are called *saprophytic* or *saprogenic* organisms. Unlike the pathogenic bacteria, they are unable to invade living tissues, and are therefore spoken of as non-pathogenic in contradistinction to the other class. They play an important part in bringing about the oxidation of organic matter, and in giving rise to certain definite compounds of an actively-poisonous character. We are all familiar with the effects of putrefaction in the secretions from the body, and everyone knows that this process cannot occur without the aid of the germs of putrefaction. This was first clearly and abundantly proved by the beautiful experiments and researches of Pasteur, to whom Lister was indebted for the inspiration that led him to formulate the now universally-practised antiseptic treatment of wounds. Putrefaction of the discharge was to his mind the cause that led directly or indirectly to suppuration and septic diseases. The causes of putrefaction he recognized as micro-organisms which enter the wound from without; for, with rare exceptions (and even these can be explained in the advanced light which bacteriology throws upon them as arising from microbes), suppuration does not follow injuries when the skin remains uninjured. The essential principle of his treatment was to prevent these organisms from gaining admission into the wound.

The brilliant results obtained by this new method of treatment, together with an occasional failure which seemed at the time unexplainable, led to further researches and observations in many directions in this subject. It was soon found that other than putrefactive germs were concerned in the process of suppuration. Particularly, I might mention the researches of Klebs during the Franco-Prussian war on septic wound diseases. He referred to the presence of a micro-organism, which he had previously described, and showed that it existed in the tissues and organs the seat of suppurative inflammation before pus had formed. He also demonstrated that these micro-organisms enter the circulation, and considered them the direct causes of pathological changes in distant organs, and further indicated that as long as the micrococcus remained at the point of infection they gave rise only to local inflammatory conditions, but if they entered the circulation, fever and other symptoms of general infection were produced.

Had time permitted I would have referred more fully to the admirable investigations of Koch in his experiments on the production of artificial septicæmia in animals, in which he conclusively showed the direct connection between certain traumatic infective diseases in animals and the never-absent definite micro-organisms. I would have touched, too, more fully upon the brilliant discoveries of Professor Ogston, of Aberdeen, which have marked a new era in the study of the micro-organisms of septic disease. It was he who described the two different kinds of micrococci concerned in suppurative processes under the terms *staphylococcus* and *streptococcus*, according to their arrangement in bunches or chains; and he pointed out that the two forms had a distinctly different method of growth and action in the tissues, as the *streptococci* entering and spreading through the lymphatics were associated with diffuse suppurative processes, while the *staphylococci* were limited to circumscribed inflammations, such as an ordinary abscess. As the result of these investigations he came to the conclusion that these micro-organisms were the cause of the abscesses he was studying, and also that they were concerned in the production of erysipelas, septicæmia and pyæmia; in other words, he advanced the view that septicæmia, pyæmia and septo-pyæmia are only symptoms of micrococcus poisoning. It would have been interesting if we could have glanced at the work done by Professor Rosenbach in his inquiries into the micro-organisms concerned in human traumatic infective diseases, but the limits of this paper will not allow more than this passing allusion.

In order to have exact scientific proof that any infective process is due to the action of any particular micro-organism, there are three points, originally insisted upon by Koch, necessary to complete the chain of evidence:—First, the constant presence of the micro-organisms in sufficient numbers in the affected parts to account for the disease; second, the possibility of isolating them from the lesions and cultivating them outside the body; third, the possibility of being able to produce identical lesions when these cultures are again inoculated in animals susceptible to the disease. The two first conditions can, as has been pointed out by Rosenbach, be carried out in the case of man as well as in the case of animals. In septicæmias and pyæmias generally, examples of the first two steps of these experimental proofs are not wanting. It has been proved over and over again that certain micro-organisms are present in every case examined under proper conditions, which have been isolated from the blood and tissues and products of disease, and have been cultivated outside the body as pure cultures by the special modes employed in bacteriology. Many observers have gone a step further, and inoculated animals from the pure cultures thus obtained, with results closely resembling—I might say, identical with—the original lesion. Even in man the third step has been experimentally proved in two forms of micrococci, namely, in that of erysipelas and gonorrhœa. In man, for obvious reasons, these experiments can have only a very limited application. We are bound, therefore, to admit that the necessary link in the chain of evidence is wanting when re-inoculation of the cultivated microbe cannot be carried out; and this is the difficulty which confronts us in the ordinary septicæmias to which man is liable, as well as the fact that the symptoms which we group under the head of pyæmia or septicæmia are not the products of one and the same micro-organism. Many, indeed, have been found in similar affections possessing different properties. Some of these are connected with suppurative processes, while at other times suppuration may be absent despite their presence, others with septic intoxication; some are confined to the surface, or spread with difficulty to the deeper parts, while others have the tendency to penetrate the living tissue, growing through it and creeping rapidly, when conditions are favourable for their growth and multiplication.

It is the constant presence of bacteria in infected wounds and their distribution through the tissues that affords the strongest arguments in favour of the bacterial origin of septic diseases in man. Experimental proof in animals in similar conditions furnishes corroborative evidence in support of this view. As in ordinary forms of septicæmia, so in puerperal fever various micro-organisms are constantly found; they are present in the wounds of the genital canal, in the tissues of the pelvis, in the peritoneum, and other cavities of the body; in the blood, in the vessels, and in distant organs in which metastatic abscesses occur they are ever present. The most common forms of bacteria seen in puerperal fever are the streptococci, which are found in rows or chains, and staphylococci, which are arranged in bunches. By the kindness of my friend, Dr. Borthwick, I am able to place on the table to-night examples of both of these forms each as a pure culture and as a microscopical specimen.

Let us consider for a moment what are the general conditions met with in obstetric practice that are due to the influence of micro-organisms. These may be classified under three general headings, namely, sapræmia, or septic intoxication; septicæmia, or septic infection, and pyæmia. Sapræmia, or septic intoxication, is frequently encountered in our work; it is due to the absorption of the products of putrefaction. We all know the readiness with which the uterus absorbs any medicinal applications; such remedies are quickly taken into the circulation and excreted by the emunctories. Ahlfeld made some interesting observations bearing upon the absorptive power of the uterus during pregnancy, labour, and the puerperum. He found that its greatest activity prevailed on the third, fourth, fifth, and sixth day after labour, but after that period it rapidly diminished unless the organ remained in a relaxed state, contraction of the uterus markedly interfering with absorption, while relaxation favoured it; an important point to bear in mind in our management of the third stage of labour and of the period immediately following it, the necessity of complete expression of clots being clearly indicated. Falk has also recently shown that the uterus in the non-puerperal state possesses a remarkable absorptive power far greater than that of the vagina, which has but a feeble influence in this respect. He attributes this to the different character of vaginal mucous membrane, which bears a closer resemblance in structure to skin. This power of the vagina must of necessity be greatly increased by the abrasions and lacerations which occur during delivery. These observations therefore explain the readiness with which putrefactive discharges at once produce illness of a more or less severe character, according to the locality and the quantity of matter that is undergoing putrefaction. In order, however, that this matter, whether it be blood clot, placental adhesions, or lochial discharge, may undergo these changes, one thing is necessary, and that is that they shall come in contact in some way with the organisms which are known to produce this kind of fermentation. I need not recall the experiments that have clearly proved that any organic matter may be preserved indefinitely from putrefactive change if care be taken to exclude these organisms. It is known that certain changes, which I need not enter into now, are the result of putrefaction, and amongst others, that certain definite organic compounds with remarkable poisonous properties are developed. Several substances of this character, which are called ptomaïnes, have been isolated from the human cadaver, from putrid meat and other rotten substances. For example, cadaverin, putrescin, and others, which, injected into animals, produce symptoms exactly resembling those we meet with when decomposing clots or decomposing bits of placental tissue are left in the womb; rigors, fever, vomiting, and other symptoms, followed by death; and examination discloses the same congestions and hæmorrhages, and a peculiar fluidity of the blood, as are found in puerperal cases when death has followed absorption from any putrid mass in the uterus. The effect will depend upon the amount administered, smaller doses being recovered from just as do cases which come under our notice when a prompt removal of all decomposing substances from the interior of the uterus is followed by the rapid disappearance of all alarming symptoms.

Although, as I before remarked, the essential cause of septicæmia has not been conclusively proved, it is found that the streptococci are much more frequently present in septic conditions than other organisms. Probably these microbes alone are not sufficient to produce the state in question. I have just noticed how the products of putrefaction, sterilized as far as any existing organisms are concerned, are able to provoke conditions closely resembling septicæmia by virtue of certain poisonous compounds if introduced into the body. In like manner it is believed that septicæmia may result from any micro-organisms which, after introduction into the tissues or blood, are capable of living and multiplying and producing similar poisonous compounds—ptomaïnes in fact—which give rise to septic intoxication. In experiments on animals with septic microbes there is always an interval of time between the inoculation and the appearance of symptoms indicating septicæmia; and further, it is known that the symptoms become more marked as the disease progresses. These facts afford strong evidence in favour of the opinion that the active agents of the disease are reproduced in the body. The interval between inoculation and the outbreak of symptoms show that the disease begins as soon as a certain amount of virus is formed in the body, and the intensity of the disease depends upon the amount of infective matter circulating in the blood. In other words, as Senn puts it, septicæmia caused by the introduction into the body of living septic germs is noted for its progressive character, resembling in this respect the perfect true septicæmia as we observe it at the bedside, differing entirely from another clinical form which is caused by the introduction into the circulation of preformed toxic substances, which we have alluded to as sapræmia.

So in puerperal septicæmia, apart from sapræmia, we have a distinct period of incubation, followed by progressive changes, step by step, until the fatal termination, and in these cases bacteria are always found invading the tissues of the genital canal. Sometimes they may extend by way of the fallopian tube and gain admission to the peritoneal cavity, giving rise to salpingitis and peritonitis; but generally their course is to travel through the canalicular spaces of the connective tissue forming the framework of the genital canal, which is continuous with the sub-peritoneal connective tissue of the pelvis. Passing into the lymphatics and along their course they excite cellulitis, and the lymphatic glands become enlarged and inflamed in the attempt to stop the progress of the poison. In the worst forms a sero-purulent œdema spreads rapidly through the connective tissue; thus we can follow the progress towards the peritoneum, and thence through stomata of the diaphragm to the thoracic cavity, and so on through the rest of the body. In the milder cases, when the dose of the poison is less, or less virulent, the invasion of the micro-organisms is arrested by the lymphatic glands, or by the blood and the tissues themselves, which erect a barrier in the form of a wall of leucocytes that stem the progress of the invading forces, with the result that the disease becomes limited to the pelvis, and a circumscribed inflammation occurs, sometimes resolving, at others terminating, in abscess.

Pyæmic cases are always due to the presence of micrococci. The means by which the remote abscesses found in the various parts of the body are formed are now clearly understood. Experiments have clearly shown that they depend upon an extension of the suppurative process from the primary seat of infection, and suppuration in distant organs by the transportation of emboli infected with pus microbes. The metastatic abscesses contain the same micro-organisms which are found in the wound secretions or the abscess from which the general infection arose. After labour, thrombosis of the veins is a physiological process which may be extended by various conditions, such as alteration of the blood, weakness of the heart, and local influences; but as long as septic contamination is averted the process passes to a favourable termination. But the admission of micro-organisms at once changes the aspect of affairs; micrococci pass through the walls of the vessels and find a suitable soil for growth on the extremities of the coagula. Beyond these, fresh coagulation takes place, so that the micrococci become enclosed between the two plugs, and the process may be indefinitely extended so as to form a series of small abscesses within the vein. From this point we may have small portions of infected blood clot detached and carried away to distant organs, or an infectious abscess may pour its contents direct into the blood current.

What then, we may enquire, has been the practical outcome of the discovery of the origin of these disorders? Has our power, our control, our influence in the management of the sick been increased; has disease been prevented; has humanity in any way benefitted by them? I think we may have no hesitation in giving an affirmative answer to these queries. We have only to glance at the benefits noticeable in our general hospitals to see the enormous saving of life and suffering that has been brought about by the application of treatment based upon the microbic origin of surgical affections. Pyæmia, which, when I was a student, was always present in the wards and decimated our surgical cases, is now but rarely seen; septic affections originating in the hospital are almost unknown; our wards are now sweet and wholesome, their atmosphere being no longer laden with disgusting odours from putrefying wounds; the scope of surgical relief has been widely extended; the comfort and health of the inmates has been immensely improved, and countless lives have been saved. And I may further enquire, has not the obstetrical branch of our art also been benefitted? Witness the great change that has taken place in our lying-in hospitals in Europe; no longer are they hotbeds of disease and death; no longer are they again and again swept by that terrible scourge, puerperal fever, which in its relentless grasp used to seize and carry off the whole inmates of a ward, or even of an entire institution. All is now changed; for while it may have been said until recently that a woman took her life in her hands if she entered a maternity hospital, the conditions are so altered that a woman is actually safer in such an institution than in her own home. It is here again that the employment of antiseptics, based upon the discovery of the beginnings of disease, that has wrought the wonderful change. Let me give the opinion of Dr. Matthew Duncan, a great obstetrician, whom no one will accuse of taking up new-fangled doctrines, and whose opinions have always commanded universal respect. He regarded this subject of antiseptics in midwifery as the greatest of all in obstetrics and gynæcology. It had attracted too little attention. It was a far greater and more beneficent matter than inoculation in cholera, of which we were hearing so much. It was as great as vaccination, and some German authors had elaborately shown that it was even greater in its results than the discovery of Jenner; that it was the means of saving more lives. Cholera and smallpox came in epidemics; these were novel, and caused terror and astonishment and attracted much public notice. Puerperal fever was, if it might be so called, a perpetual epidemic, a never-ceasing destroyer of lives, the most valuable, the most loved in the community. And yet this grand discovery, or this application of a discovery, was little heard of. A single puerperal death of a great person made a noise for a time, but the constant stream of puerperal calamities was unheeded because it was constant.

I might remind you also that not only have antiseptics produced the changes I have noted, but their application has even been farther reaching than would at first appear. It has not only practically abolished puerperal fever from these institutions, but it has vastly reduced the amount of other illnesses of the lying-in period. Not all cases of febrile disturbance pass on to the more serious condition of puerperal septicæmia. Simple condition of suppuration of the genital canal will produce disturbance which is easily amenable to treatment, or may spontaneously improve. The milder forms of puerperal inflammation are also due to infection; and the proof of this is afforded by the clinical fact that rigid antiseptic prevention treatment has caused these inflammatory attacks to be rare, and has modified them to such an extent as to almost remove the evidence of their presence.

Let us glance for a moment at what has been accomplished at some of the great lying-in hospitals. I will not weary you with any elaborate statistics, but content myself with a brief reference to their results.

The Dresden lying-in hospital has an average number of 14,000 maternity cases per annum. The total mortality before 1872 had been at the rate of 50 per 1,000 births. This was reduced in 1886 and 1887 to 10 per 1,000, while the deaths from puerperal fever were only 0·7 per 1,000.

At the Maternitè, in Paris, from 1858 to 1869 the average mortality was 93 per 1,000; from 1870 to 1881, in consequence of great hygienic improvements, the mortality fell to 23 per 1,000. Then antiseptic methods were rigidly observed, and the mortality fell during the next few years to 11 per 1,000.

During nine years at the Maternity Hospital, New York, from 1875 to 1883 the average rate was 41·7 per 1,000; strict antiseptics reduced this mortality to 10·6 during the next five years, and deaths from septic causes to 2·7 per 1,000.

The Boston Lying-in Hospital also affords very striking evidence—with an average of 300 cases a year its mortality from septic causes fell from 50 per 1,000 in 1882 and 1883 to absolutely nil in 1886.

The history of the general Lying-in Hospital, London, is worth recording if time permitted, but I will merely mention that for years and years puerperal fever had been ever present, and the mortality always high; at times it is described as fearful. Notwithstanding that the hospital was closed, that thousands of pounds were spent in hygienic improvements, the mortality varied for many years from an average of 30·8 per 1,000 to 17 per 1,000. Antiseptics have now brought it down to six per 1,000, while puerperal fever is now practically unknown, one case only having occurred during the period referred to.

But it may be urged in this colony, where conditions are so favourable to health, that there may be no need to take such special precautions. True, our general statistics will compare favourably with those of older countries, and it would be strange if it were not so with our sparsely settled population and with our boards of health jealously watching our interests throughout the colony. But the question arises, do our puerperal statistics stand in so favourable a light? A reference to the records will show that the difference between our figures and those of the old country is infinitesimal, despite our more favourable surroundings; that while the average number of deaths from puerperal causes has been 4·73 per 1,000 births during the past ten years in Great Britain, in South Australia it has been 4·39. It may at once be conceded that a certain number of these arose from causes that no special preventive measures could have averted, such as accidents from hæmorrhage, difficult operations, ectopic gestation; but it must be also remembered that we seldom, if ever, meet with the grave deformities that so frequently imperil the lives of parturient women in the older countries. Our figures are no better; they are not so good as some of the large lying-in institutions of Europe and America, and yet to them the worst cases gravitate.

It certainly does not require any special pleading on my part to convince you that the wonderful changes produced in these institutions is due to the perfect aseptic management that has prevailed. Sanitary improvements, such as thorough ventilation, purer air, greater space, and greater cleanliness, have all been tried over and over again; yet they signally failed in bringing about the practical extinction of puerperal fever in those hospitals, such as has followed the introduction of modern antiseptics. Is it, therefore, not a fair inference for us to draw that much may be done by ourselves in our practice to prevent the occurrence of the disease which is constantly springing up in our midst and exciting our gravest anxieties?

We are naturally led a step further to enquire how this desirable result is to be brought about. In considering this question we must carefully weigh in our minds the means by which infection may be conveyed to the lying-in woman in ordinary practice. In the great majority of cases it must be acknowledged that the disease may be carried by the doctor or the nurse, though occasionally it may spring from defective sanitary arrangements, and at times from the existence of some disease of the genitals of aseptic character at the time of labour. The latter must always be difficult to combat, because we may be ignorant of its existence. Sanitary defects can be corrected, and should always attract the watchful attention of the medical practitioner. But what is to be suggested with regard to the two other channels of infection—the doctor and the nurse? With regard to the doctor, I would say he should look upon a woman in labour as one on whom he is about to perform a surgical operation. Our preparations to ensure purity of touch, our preparation of the patient, our care of the instruments, should be almost identical. I need not point out that there is scarcely anyone here to-night who if about to perform an operation, be it serious or slight, would not first thoroughly cleanse his hands by washing and the use of a nail-brush, and then purify them by disinfection before touching the patient. Why this scrupulous care? It is because the surgeon knows that infection is, or may be, lurking on his fingers, and especially under his nails. So with his instruments: all fear of dirt or infection must be satisfied, and the part to be operated upon receives similar treatment. I maintain that the requirements of the lying-in woman equally demand—I might say, more urgently demand—preparation and provision against infection of a like character. She will have many wounds which cannot be seen, which, however, will be exposed to fluids of a character that afford a ready breeding ground for putrefactive and other septic micro-organisms. It is therefore our duty to protect her to our utmost against their invasion. Briefly, I would say proper cleansing and disinfection of our hands, of the external genitals especially, a disinfecting vaginal douche while labour is progressing, refraining from and strongly discouraging all unnecessary examinations, and proper management of the third stage so as to ensure the complete emptying of the uterus, and an antiseptic washing of the external parts afterwards, will complete the requirements of an ordinary case of labour. Should the labour require much manipulation, as when operative procedures are employed, then a thorough antiseptic douching of the whole canal would be necessary. It is needless for me to enter into details, because I believe medical men are, as a body, keenly alive to the facts I have mentioned, and are familiar with the methods usually employed. The weak link in the chain is, I fear, the nurse, whose knowledge of midwifery is very limited, and whose acquaintance with antiseptic methods is absolutely nil. The whole question of nursing the sick has of late years undergone a wonderful evolution. In our surgical and medical work we have raised up a body of young women endowed with aspirations for independence and usefulness and a desire for knowledge, who have zealously entered into the spirit of their work. Without having mastered the principles of bacteriology, our modern nurse has been taught the practical work which is based upon it, and can be depended upon to carry out the instructions in cases entrusted to her. But how different is it with the ordinary monthly nurse, who has received no training whatever, whose ignorance is often aggravated by blind prejudice against the adoption of innovations which she is incapable of understanding? Her arrogance of knowledge is a sure sign of her uneducated mind. I agree with Playfair, when he says that he honestly believes that many and many a case of septicæmia has originated with the nurse. It may be that the medical man is brought more in contact with infectious material, but he may be trusted to do his best to avert the danger. Moreover, he is only brought in contact with the genital tract at the time of labour, while the nurse is constantly handling the dangerous parts at all hours for many days in succession; and if instructions are given to ensure aseptic progress, the orders are only carried out in a perfunctory way. The risks of the patient from dirty hands and finger nails, from soiled linen and clothing, from the use of dirty uncleansed sponges and other articles required in the sick chamber, can easily be understood. I see little hope for any marked improvement in the character, status, education, and efficiency of monthly nurses until we can train a class similar to those who are engaged in ordinary medical and surgical work. But here we have no institution in which the requisite instruction can be obtained. Here, then, is indeed an opportunity for the exercise of private benevolence in creating an institution which would be of immense benefit to poor, respectable, distressed women who shrink from the only portals that are at present open to them, the destitute asylum. Such an institution would have a far wider field of action, inasmuch as it would enable us to train a band of nurses upon whose co-operation and help we could rely in our efforts to prevent disease.

DR. MARTEN then moved a vote of thanks to Dr. Way for his able address, and to the retiring Council for their services during the past year. Carried by acclamation.

DR. WAY acknowledged the votes of thanks, and invited Dr. Poulton to assume the presidential chair.

DR. POULTON expressed his sense of the honour done him in electing him to the office of President, and made a graceful allusion to the fact that Dr. Stirling had recently been elected an F.R.S., and congratulated him in the name of the Branch.

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, AUGUST 15, 1893.

EDITORIALS.

AN ABSURD VERDICT.

A man named Gill was tried on the 27th ult. at the Central Criminal Court, Sydney, under the name of "Robert Russell" before the Chief Justice of New South Wales, having been indicted on a charge of "having forged what purported to be a diploma from the Royal College of Surgeons of Ireland, and with having uttered the same; also with having forged the name of Robert Usher Russell to an agreement with intent to defraud." For the prosecution it was alleged that accused went to a Mr. Thomas, a medical agent in Pitt-street, and representing that he was Dr. Robert Usher Russell, of Parramatta, produced what professed to be a diploma, made out in the name of Robert Usher Russell. He then agreed to purchase a practice at Fernmount, and signed an agreement to do so in the name of Robt. U. Russell; but it was subsequently ascertained that he was not Dr. Robt. Usher Russell, L.R.C.P.I., of Parramatta. A letter, which accused sent to Thomas, admitted the forgery; and after a retirement of several hours the jury announced that Russell was guilty of forging a diploma, that he did utter it, and that he forged the name of Robert Usher Russell to the agreement, but he had not any guilty intent. This was the theory put forward by the accused's counsel, and its acceptance by the jurors seemed to rather astonish the Chief Justice in view of their finding that he was guilty of forgery on two counts, and of uttering on the other charge. He pointed out that all he could do under the circumstances was to enter a finding of not guilty, and accused was discharged.

A more extraordinary verdict it is impossible to imagine, and a jury whose united *wisdom* could arrive at such a conclusion would form interesting pyschological examples to an expert who had made idiocy a subject of special study.

Quite independently of the direct injury which was done to the genuine Dr. Usher Russell by the assumption of his name and professional titles by such an arrant impostor, the deception practised on the people amongst whom he had endeavoured to establish himself for the purposes of practice was a false pretence which all men with ordinarily-constituted minds must think would be punishable under existing law. The verdict—ludicrously absurd as it appears—is perhaps, however, not without its usefulness as showing the urgent necessity for the passage of the Medical Bill now before Parliament, which will prevent any such frauds on the public for the future.

INEBRIATE ASYLUMS.

The question of the establishment of Inebriate Asylums by the State was raised in the Parliament of New South Wales during the recent session, and a promise made by the Premier, Sir George Dibbs, that "Echo Farm," an institution for the treatment of inebriety, founded and conducted by private enterprise, should be visited and reported on by a government officer. This was accordingly done. Mr. Sydney Maxted, the Director of Charities for the colony, making an unannounced visit, found everything in a satisfactory condition. He followed up a report to this effect, with suggestions as to the lines upon which he thought a retreat might perhaps be established when the state of the finances permits the Government to give substantial aid to the objects in view. His remarks may be summarized as follows :—

> As one of the chief essentials of success in connection with any asylum for inebriates is complete isolation, I suggest that an island situated as near as possible to Sydney, and with an area of not less than 200 or 300 acres, should be obtained as a site for the first group of homes. Such an establishment should be free from prison surroundings or any obvious provision for compulsion or restraint, while there ought to be no possibility of inmates escaping before a cure had been effected. There were one or two such sites to be obtained on the Hawkesbury River. What was known as the barrack system was not to be recommended, the aggregation of the inmates being liable to result in demoralizing mischief, of which evidence was to be seen in the infirm and destitute asylums, where the inmates, for want of room, were congregated together in hundreds, and idleness was the natural outcome. An asylum for the inebriates should be as homelike as possible, and the most economical system, having that end in view, would be to have the asylum buildings in the form of comfortable weatherboard or brick cottages, each to contain not more than 12 or 15 inmates, and to be as far removed from each other as possible. Under such a system accommodation could be provided for every 300 patients at a cost of about £10,000 to £12,000 for buildings. By such means classification, another indispensable factor of success, could be insured. Since any comprehensive scheme under which "gutter drunkards" could be taken up and sent to the homes instead of to gaol would have to be governed by legislation, provision could also be made for persons who desired to voluntarily surrender themselves and pay for their own maintenance, similar to that in vogue for paying patients at the various general hospitals. The law might also be amended, so that instead of being subjected to the degradation of the usual police court exposure, the patient could be committed

by stipendiary or police magistrates, or by two Js.P., in chambers. The homes, being a State concern, would naturally be unsectarian, ministers of religion having, under proper regulations, the right to visit members of their particular denominations. A further provision should be made for the outdoor employment and healthy recreation of the inmates. Thus grouped in small farm homes, the inmates could be made to participate in the working of the institution generally as interested members of the community without realizing that they were under treatment or detention, and almost as a natural consequence they would unconsciously lose the craving, as well as the taste, for intoxicants by the slow process of time, and the steady mental and physical improvement which would inevitably result from the generous diet and healthy life they would lead, under necessary restrictions, until they became sufficiently restored to resume their places in the world. The whole establishment should be placed under the care of a medical superintendent, with a lay assistant, both of whom must possess special qualifications for this particular work, which, in order that it may be fully successful, would certainly require on the part of officials the exercise of tact, patience, keen sympathy and unwearying perseverance. So far as the subsidizing of the present home was concerned, . . . if a subsidy would carry with it a condition that the institution should be subjected to oversight, control or inspection by any State official, monetary assistance would not be accepted from the Government.

THE NEW SOUTH WALES GOVERNMENT PATHOLOGIST.

Since our last issue Dr. G. E. Rennie, M.D. Lond., has been appointed Government Pathologist for the coroner's district of Sydney, New South Wales, at a salary of £300 per annum.

The appointment is an eminently fitting one, and cannot fail to be of advantage to the colony in the furtherance of justice. We think, however, the salary is inadequate; and had we been in a position to advise, we should rather have seen a joint appointment made to the post of Dr. Rennie and Dr. Jamieson, to be paid by the usual inquest fees, the *post-mortems* to be made by each alternately, or by both together in cases of great public importance.

In this way we should have had two gentlemen whose expert pathological knowledge would have been well known to the public, and whose evidence would be authoritative in cases where occasional divergent professional opinion has been the cause of some scoffing in the past.

The XI International Medical Congress, which was to have been held in Rome next month, has been postponed, probably on account of the outbreak of cholera in Europe.

We have been compelled, from extreme pressure on our space, to hold over a great many Letters to the Editor, as well as Original and other contributions.

LETTER TO THE EDITOR.

TRANSACTIONS OF CONGRESS.

(To the Editor Australasian Medical Gazette.)

Sir,—The appearance of the volume of the transactions of the recent Intercolonial Congress, which is now being issued to members of the Congress as rapidly as the resources of the Government Printing Office will allow, may, with your permission, be made the opportunity of a few words of explanation and acknowledgment on the part of the Editor of that volume.

Early in November last the Executive Committee of the Congress did me the honour to invite me to undertake the editing of the transactions. In accepting that responsibility I was fully alive to the importance of placing the publication in the hands of members at the earliest possible date, nor did I at any time during the work lose sight of this main object. I accordingly devoted myself to the work, and on the 30th January the papers and illustrations, complete and in order for printing, were placed in the hands of the Government Printer. During that period the illustrations (which are numerous) had, with, I think, two exceptions, been returned to the authors to be re-drawn and rendered suitable for reproduction. A large number of papers had, owing to exigencies of space, been returned to authors for revision and abridgement, and the daily transactions of the Congress had been prepared for publication.

On the latter date I was informed by the Government Printer that, owing to reductions in his staff and to stress of public work, the printing of the transactions could not be proceeded with for some weeks, and as a matter of fact the circumstances mentioned delayed progress being made with the printing of the papers until the end of the third week in April—a period of almost three months.

This unforeseen delay was a cause of considerable disappointment to me personally, and has, I fear, much diminished the interest which the earlier appearance of the transactions might have aroused. The delay was, however, as unavoidable as it was unforeseen, and I desire to record my sense of the obligation which we owe to the Government Printer and his staff for the efforts made by them to facilitate the progress of the work.

To the various authors for their ready and courteous assistance in necessary abridgment or re-arrangement of papers, to the Secretaries of the various Sections for their valuable help in the revision of proofs, in which work Dr. Rennie kindly co-operated, and finally to the Members of Congress for the patience with which they have tolerated a delay in the appearance of the volume, which has been a source of great disappointment to me, I beg to offer my very sincere thanks. I am grateful also for many expressions of appreciation and sympathy which have reached me.

I am, yours, &c.,
L. RALSTON HUXTABLE.

36 College-street, Hyde Park,
Sydney, August 4, 1893.

First-class Practices in good country towns wanted by L. Bruck, Medical Agent, Sydney.

Reliable and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of New South Wales and Queensland on application to L. Bruck, Medical Agent, Sydney.

REVIEW.

A Text-book of the Theory and Practice of Medicine. By American teachers. Edited by William Pepper, M.D. LL.D., Provost and Professor of the Theory and Practice of Medicine, and of Clinical Medicine in the University of Pennsylvania. Vol. I. Philadelphia: W. B. Saunders, 1893.

If testimony were needed—but it is not—to the exceptional excellence of American teachers of medicine, we would point to this really splendid work as proof of the highest and most satisfactory kind. To attempt criticism of a series of monographs prepared by men of light and leading in the profession of the great republic is no easy task. What is he who cometh after the king? We can do no more than call the serious attention of our readers to this remarkable production, the first volume of which we notice to-day. Professor Pepper, whose name is familiar in our mouths as household words, has done the work of editor, and has contributed no less than 12 articles to the first part. The introductory chapter is on hygiene, from the pen of Dr. Billings, professor of that subject in the University of Pennsylvania. It is specially well done, and embraces a variety of matters of prime importance to preventive medicine. The remarks on sanitary jurisprudence are full of pith, and exhibit delicate sagacity in handling this perplexing topic. There is full discussion of disinfection, isolation and other allied principles.

Dr. Pepper's elaborate treatise on typhoid fever next engages us. It is a finished piece of work. According to Hughling-Jackson and Money, the knee-jerk is never absent in typhoid fever. Fuller investigation and larger data on this point are to be desired. Hydrotherapy is Dr. Pepper's sheet anchor in the treatment of typhoid. He quotes Brand's last statistics, who tabulated 1,223 cases with only 12 deaths, or a mortality of 1 per cent.! Hare, of Australia, reported 797 cases with a mortality of 7 per cent. Systematic treatment by baths has been considered impracticable by many, but Pepper shows that it is very generally applicable. The article on small-pox is by Dr. Whittaker, Professor of Medicine at Ohio. His historical introduction is worthy of an antiquary, and lends peculiar interest to a masterly account of the disease.

Dr. Gilman Thompson, of the University of New York, writes on diphtheria, with special review of its etiology. He says: "If the Klebs-Löffler bacillus be accepted as a *sine quâ non* in the etiology of diphtheria, then croup must necessarily be separated from it." At the bedside we have learned the empirical law, which the microscope now determines to be ultimate. Clinically, there has always existed a belief in non-specific membranous laryngitis.

Dr. Horatio Wood, of cosmopolitan fame as Professor of Therapeutics in the University of Pennsylvania, treats of mental diseases. He writes very fully, believing that the great danger of all specialism is lack of breadth of view. A better foundation for the student could hardly be imagined than this classical exposition of the general principles and important clinical facts of alienism.

Dr. Osler, Professor of Medicine in the Johns Hopkins' University, whose able book on medicine we reviewed a short while ago, writes on organic diseases of the brain. His knowledge, original research, and elegance of style deserve our respectful notice.

Truly may it be said of this work: "In the multitude of counsellors there is wisdom."

THE MONTH.

FIJI.

The Hon. Dr. B. G. Corney, Chief Medical Officer of the colony of Fiji, having obtained a year's leave of absence, has left for Europe. Dr. Corney intends to attend the International Medical Congress in Rome.

NEW SOUTH WALES.

The diphtheria ward in connection with the Sydney Children's Hospital at the Glebe was formally opened by Mr. Justice Stephen last month. In the ward accommodation is provided for 12 patients.

Mr. Thomas Nugent Griffith, L.R.C.P. Ed. 1876, M.R.C.S.E. 1877, late of Granville and formerly of Oakley Square, London, died at 3 Stanley Terrace, Crystal-street, Petersham, near Sydney, on July 26, aged 41 years.

Dr. R. F. Blackwell, of West Maitland, has returned from his trip to England.

We regret to learn that Dr. Blackwood, of Cooma, was thrown from his horse on July 15 and severely hurt.

Dr. C. F. Burton, formerly of Robe (S.A.), has left Sydney by the ship "Royal Tar" for Monte Video (Uruguay), as Surgeon in charge of the "New Australia" contingent.

Dr. F. A. Davy, late of Balmain, has left for England.

Dr. Thos. Evans, of Macquarie-street, one of the leading oculists in Sydney, proceeded, at the Water Police Court on July 13, against a blind beggar for criminal libel. The man had been exhibiting a painted sign at the street corners for some years past, bearing the inscription, "Please help poor Harding, who went blind under an operation under Dr. Evans at the Prince Alfred Hospital," with a view to excite sympathy. When the case was called on the defendant agreed to apologize, and he admitted that the statement was entirely without foundation. The charge was then withdrawn.

Dr. G. E. Rennie, Pathologist of the Prince Alfred Hospital, has been appointed Government Pathologist for the metropolitan district of Sydney. It will be his duty to make *post-mortem* examinations in important cases, and to give expert evidence in relation to the cause of death.

Dr. Walter Scott, late of North Brighton (Vic.), has been elected one of the three Medical Officers of the Balmain United Friendly Societies' Dispensary.

Dr. R. W. L. Scott, late of North Brighton (Vic.), has commenced practice at Cleveland-street, Redfern (Sydney).

Drs. F. C. S. Shaw and G. B. Sweet have been appointed Resident Medical Officers at the Coast Hospital, Little Bay, at a salary of £50 each per annum, in the place of Dr. T. E. Franklin, who has been appointed Resident Medical Officer at the Trial Bay Public Works Prison, near Arakoon, in the place of Dr. G. H. Taylor, who has been appointed Relieving Government Medical Officer.

We regret to learn that, on July 14, Dr. Walley, of Tamworth, was thrown from his buggy and received a serious compound fracture of the left leg. Drs. Cooper and Harris attended to his injuries, and he is now progressing satisfactorily.

NEW ZEALAND.

Dr. Thos. W. Bell has removed from Whangarei to Wanganui.

Dr. C. T. Little, of Ravensbourne (Dunedin), has been appointed Resident Surgeon at the Auckland Provincial Hospital in the place of Dr. J. Somerville.

Dr. C. G. F. Morice has commenced practice at Greymouth.

Dr. W. S. Thomson, M.D. Glas., F.R.C.S. Ed., a recent arrival, has commenced practice at Dunedin.

QUEENSLAND.

Dr. H. W. Brownrigg has removed from Winton to Goondiwindi.

Dr. F. Challands, late of the Prince Alfred Hospital, Sydney, is now practising at Maryborough.

Dr. Alfred Neale, of New Norfolk (Tas.), desires us to state that he has not succeeded to Dr. Hunt's practice at Hughenden (Q.)

Dr. C. A. E. Sheaf, of Toowoomba, has left by the steamer "Miowera" for Honolulu, Canada, United States and England. Dr. Sheaf intends to stay at Honolulu one month, with the intention of studying leprosy at the Leper Island, Molokai.

Dr. F. Wellford, a recent arrival, has succeeded to the practice of Dr. Brownrigg at Winton.

Dr. H. R. Wright, late of Regent Square, London, has settled at Brisbane.

SOUTH AUSTRALIA.

We regret to have to announce the death of Mr. John Rees, J.P., L. *et* L. Mid. R.C.P. Ed., M.R.C.S., Eng. 1875, who died of phthisis at his residence at Lower North Adelaide, on the 19th July, at the age of 42. The deceased gentleman arrived in the colony in 1876, and after holding the position of Surgeon Superintendent in the South Australian Emigration Service for some years, he settled at Hindmarsh.

Dr. E. Elphick, of Brim (Vic.), and formerly of South Australia, has been appointed Medical Officer of the combined lodges at Maitland.

Dr. Wm. Fetherstonhaugh, formerly of Tintaldra (Vic.), has commenced practice at Waukaringa, 235 miles N. of Adelaide.

Dr. F. Goldsmith has removed from Port Wakefield to Hindmarsh, a suburb of Adelaide.

Dr. Charles H. S. Hope and **Dr. Laura Fowler**, of Adelaide, have entered into partnership for life.

Dr. C. L. Strangman has removed from Carrieton to Orroroo.

VICTORIA.

Measles are very prevalent at Ballarat, Bendigo, Rosedale and many other places.

Sixty thousand persons throughout Victoria are stated to be suffering from measles.

We regret to have to record the death of Mr. Thomas Aubrey Bowen, M.R.C.S. Eng. 1862, L. *et* L. Mid. K.Q.C.P. Irel. 1863, late of Melbourne, who died in London on July 28, aged 50 years. The deceased gentleman arrived in Melbourne in 1865, when he was appointed Resident Surgeon at the Melbourne Hospital. The following year he married a daughter of the late Mr. Money-Miller, and commenced practice as a specialist for diseases of the eye, and as such he was closely connected with the Victorian Eye and Ear Hospital. He made frequent visits to Europe. He was one of the Executive Commissioners of the Victorian Court at the Paris Exhibition of 1889. He was a Chevalier of the Legion of Honour, and quite recently he was chosen to represent Melbourne at the forthcoming International Medical Congress in Rome.

The death is announced of Mr. William Marshall Taylor, M.R.C.S. Eng. 1879, who for the last three and a-half years practised at Inglewood.

Mr. John MacGregor Young, M.B. *et* Ch.M. Glas. 1887, a recent arrival, who for some months practised at Mildura, died on July 3 at the Consumptive Sanatorium, Echuca, at the early age of 33.

Dr. Chas. Fetherstonhaugh has resumed practice at King-street, West Melbourne.

Dr. G. E. T. Haydon has removed from Lorne to Macarthur.

Dr. C. de W. Heard has left Macarthur.

Dr. W. J. Long has been appointed Assistant Resident Medical Officer at the Melbourne Women's Hospital in the place of Dr. Pinniger, resigned.

Dr. A. E. Sprod, late of the Melbourne Hospital, has commenced practice at Meredith, 74 miles W. of Melbourne.

Dr. Constance Stone and **Dr. David E. Jones**, both of Collins-street, Melbourne, have been united in wedlock.

Dr. J. E. Usher, of Collins-street, Melbourne, has left by the steamer "Miowera" for Canada and Chicago, en route to London.

Dr. G. F. Wickens, late of Warragul, is now practising at Kyabram, 124 miles N. of Melbourne.

WESTERN AUSTRALIA.

Dr. A. Courtenay Evered, a recent arrival, has succeeded to the practice of Dr. H. L. Smith at Albany.

Dr. H. L. Smith, who practised at Albany for the last four years, has left by the R.M.S. "Orizaba" for England to prosecute his appeal to the Privy Council against the small amount of damages awarded to him in his case against the Western Australian Government.

MEDICAL APPOINTMENTS.

Craig, Walter Joseph, M.B. *et* Ch. B. Melb., to be Public Vaccinator at Ringwood, Vic.

Hart, John Wesley, M.B. *et* M.S. Ed., to be Government Medical Officer and Vaccinator for the district of Quirindi, N.S.W.

Haydon, Gerald Edgar Tom, L.S.A. Lond., to be Public Vaccinator at Macarthur, Vic.

Long, William John, M.B. *et* Ch. B. Melb., to be Public Vaccinator at the Melbourne Women's Hospital, Carlton, Vic.

Newell, John Alexander, M.B. *et* Ch. B. Univ. N.Z., to be a Public Vaccinator for the district of Gabriel's, N.Z.

Schlink, Rudolph Hubert, M.D., to be Public Vaccinator at Wodonga, Vic.

Sprod, Albert Edward, M.B. *et* Ch. B. Melb., to be Public Vaccinator for Meredith and Steiglitz, Vic.

Wickens, George Frederic, M.B. *et* Ch. M. Glas., to be Public Vaccinator for Kyabram, Vic.

Wilson, Henry Bosse, M.R.C.S.E., to be Health Officer for shire of Mornington, also Public Vaccinator for Frankston, Vic.

Wright, Thomas Henry, M.R.C.S.E., L R.C.P. Lond., to be Public Vaccinator for the Ohinemuri district, N.Z.

Wanted, *Australasian Medical Gazette*, Vol. X, No. 5 (February, 1891); liberal price given. E. A. Petherick and Co., 333 George-street, Sydney.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Scott, Robert William Loveridge, M.B. *et* M.S. Edin. 1891.
Gordon, Edward Patrick Argyle. M.D. Victoria Coll. Ontario 1890.
Hooken, James Preston, L.R.C.P. Lond. 1882; L.S.A. Lond. 1885; M.R.C.S. Eng. 1892; M.D. Brux. 1892.
Forbes. Arthur Daniel, M.B. *et* M.S. Aberd. 1887.
Lochead, William Kerr, L.R.C.P. Edin. 1888; L.R.C.S. Edin. 1886; L.F.P.S. Glas. 1888.
Booth, Edward Johnson Hardy, L.S.A. Lond. 1868; M.R.C.S. Eng. 1868.

NEW ZEALAND.

Morice, Charles George Frederick, M.R.C.S.E., L.R.C.P. Lond., M.D. Brux. 1892.
Thomson, William Sinclair, M.D. Glas., F.R.C.S. Edin.

QUEENSLAND.

Challands, Frederick, M.B. *et* Ch. M. Syd. 1892.
Wright, Henry Richard, M.B. *et* Ch. M. Edin. 1867; A.A. Oxon. 1862.

SOUTH AUSTRALIA.

Harbison. William Henry, L. *et* L. Mid. R.C.P. *et* R.C.S. Ed. 1891; L.F.P.S. Glas. 1891.

VICTORIA.

Guinand, Paul, L.S.A. Lond. 1890; M.D. Berne 1891; M.R.C.S. Eng. 1891; L.R.C.P. Lond. 1891.

DR. VANZETTI'S ART UNION.

THE following amounts have been received up to August 4:—No. 343, L. Bruck, 10s. 6d.; 556, Dr. Peare, 10s. 6d.; 38, Dr. Blackall, 10s. 6d.; 28 and 211, Dr. Beeston, 21s.; 84, Dr. Clay, 10s. 6d.; 40. Dr. Blackwood, 10s. 6d.; 91 and 188, Dr. H. R. Bell, 21s.; 109, Dr. Creed, 10s. 6d.; 48, Dr. Bott, 10s. 6d.; 141, Dr. Eichler, 10s. 6d.; 203, Dr. Hetherington, 10s. 6d.; 221, Dr. Hutching, 10s. 6d.; 429 and 559, Sir Alfred Roberts, 21s.; 1, Dr. Abbott, 10s. 6d.; 230 and 473, Dr. Sydney Jones, 21s.; 321, Dr. Marano, 10s. 6d.; 22 and 497, Dr. W. F. Bassett, 21s.; 25, Dr. Bean, 10s. 6d.; 215, Dr. Hozier, 10s. 6d.; 35, Dr. Bernstein, 10s. 6d.; 357, Dr. H. Mueller, 10s 6d.; 498 and 519, Dr. Wade, 21s.; 499 and 408, Dr. Pym, 21s.; 495 and 413, Dr. B. Read, 21s.; 506 and 496, Dr. J. A. Thompson, 21s.; 502, Dr. P. J. Thane, 10s. 6d.; 516, Mr. Woolf, 10s. 6d.; 55 and 467, Dr. Walker Smith, 21s.; 96, Dr. Connor, 10s. 6d.; 512, Dr. H. I. Tresidder, 10s. 6d.; 231, Dr. R. T. Jones, 10s. 6d.; 205, Dr. Hinder, 10s. 6d.; 173 and 391, Dr. W. Peirce, 21s.; 415 and 444, Dr. Reddall, 21s.; 135 and 493, Dr. Drought, 21s.; 175, Dr. J. B. Graham, 10s. 6d.; 333, Dr. A. H. Meeke, 10s. 6d.; O. Incog, 10s. 6d.; 423 and 296, Dr. Rogers, 21s.; 396 and 461, Dr. Pickburn, 21s.; 447, Dr. H. J. H. Scott, 10s. 6d.; 445, Dr. Schwarzbach, 10s. 6d.; 258, Dr. Lane, 10s. 6d.; 198, Dr. A. Henry, 10s. 6d.; 399, Dr. Poggioli, 10s. 6d.; 170 and 216, Dr. Godson, 21s.; 533, Dr. Westrum, 10s. 6d; 129, Dr. Thos Dixson, 10s. 6d.; 209, Dr. A. J. Hood, 10s. 6d.; 59, Dr. B. Bowman, 10s. 6d.; 189, Dr. Harrison, 10s. 6d.; 103, Dr. Coutie, 10s. 6d.; 364, Dr. G. Nagel, 10s. 6d.; 276, Dr. A. S. Long, 10s. 6d.; 459 and 571, Dr. Sibley, 21s.; 151 and 572, Dr. Fiaschi, 21s.; 58 and 492, Dr. W. Brown, 21s.; 521 and 494, Dr. Walley, 21s.; 107 and 483, Dr. Crago, 21s.; 207, Dr. Hoets, 10s. 6d.; 34, Dr. R. H. K. Bennett, 10s. 6d.; 210 and 465, Dr. J. J. Hood, 21s.; 126, Dr. J. A. Dick, 10s. 6d.; 146 and 526, Dr. Evershed, 21s.; 307, Dr. McMath, 10s. 6d; 81 and 568, Dr. W. Chisholm 21s.; 57 and 567, Dr. Breton, 21s.; 268, Dr. Lennhoff, 10s. 6d.; 389, Dr. Paton, 10s. 6d.; 551, Dr. Worrall, 10s. 6d.; 200, Dr. T. J. Henry, 10s. 6d.; 553, Dr. Wrigley, 10s. 6d.; 225, Dr. Jenkins, 10s. 6d.; 546, Dr. G. A. H. Woodforde, 10s. 6d.; 505 and 14, Dr. C. E. Thompson, 21s.; 242 and 560, Dr. W. Kelly, 21s. (Various sums, amounting in the aggregate to £45, have already been forwarded to Dr. Vanzetti in Forbes.)

⁂ The drawing will take place on September 1, at the Royal Society's House, Sydney, immediately after the usual monthly meeting of the New South Wales Branch British Medical Association; the list will be closed on August 31.

BIRTHS, MARRIAGES, AND DEATHS.

⁂ The charge for inserting announcements of Births, Marriages, and Deaths is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BRADY.—On July 28, at Sydney, the wife of Dr. A. J. Brady, of a son.

DAWSON.—At Pambula, N.S.W., July 1, the wife of Cecil Lacy Dawson, M.R.C.S. and L.R.C.P., of a daughter.

HELSHAM.—At Richmond, July 19, the wife of W. M. Helsham, M.R.C.S., of a daughter.

MACGILLICUDDY.—On the 1st July, at Richmond, Melbourne, the wife of Dr. D. Florance MacGillicuddy, of a son.

NORRIS.—On the 25th June, at Lilydale, Vic., the wife of W. P. Norris, M.D., of a son.

POULTON.—On the 30th June, at Adelaide, the wife of Benjamin Poulton, M.D., of a daughter.

MARRIAGES.

BUTEMENT—COOTE.—On the 4th July, at the Congregational Church, Malvern, Vic., William Butement, M.B., M.R.C.S., Masterton, N.Z., to Jeannye Burnett, eldest daughter of Charles Coote, Melbourne.

HOOD—RALSTON.—At Harwood, Clarence River, N.S.W., on the 29th ult., by the Rev. J. Stewart Scott, James Jarvie Hood, M.B., Ch. M., D.P.H. (Glas. Univ.), Maclean, Clarence River, to Helen Marian Vardon, daughter of Henry William Ralston, Sydney.

HOPE—FOWLER.—On the 4th July, at Glen Osmond, S.A., by the Rev. S. Mead, Charles Henry Standish Hope, M.D., Ch. B., to Laura Margaret Fowler, M.B., Ch. B., youngest daughter of George Swan Fowler, Glen Osmond, Adelaide.

JONES—STONE.—On the 4th July, at the Alma-road Congregational Church, St. Kilda, D. Egryn Jones, M.D., to E. Constance Stone, M.D.

M'COLL—PURCHAS.—On the 5th July, at St. Hilary's, Kew, Dr. D. Stewart M'Coll, Richmond, to Eliza Anne, youngest daughter of Albert Purchas, C.E., Kew, Vic.

NORMAN—STEPHENS.—On the 17th July at Willunga, by the Rev. Father O'Donnell, Walter Norman, physician and surgeon, of Yankalilla, S.A., to Henrietta Maria, fourth daughter of Henry M. Stephens, of Yankalilla.

STONEY—M'COMAS.—On the 18th July, at St. John's Church, Toorak, Melbourne. Bobert Bindon Stoney, M.B., B. Ch., of Cobargo, N.S.W., to Louisa Theodora, youngest daughter of John W. M'Comas, Toorak.

WHEELER—WHEELER.—On the 28th June, at St. Paul's Church, Ipswich, Q., James Atkin Wheeler, M.B., B.S. Lond., M.R.C.S. Eng., of Toowong, to Lillah Constance, fourth daughter of Daniel Wheeler. Esq., of Chelmsford, Essex, England.

DEATH.

STEWART.—On the 16th April, on board the Loch Sloy, bound from Melbourne to London, Sara, wife of Dr. Jno. L. Stewart late of Walhalla, Vic., aged 18 years.

WE have been requested by Messrs. Sharland and Co., in Auckland, to call the attention of our readers to their advertisement in another place of this issue, announcing that they are in a unique position for affording full information as to likely openings or practices for disposal throughout New Zealand. Messrs. Sharland and Co. being an old-established firm and the publishers of the well-known *Sharland's Trade Journal*, our readers can place the fullest confidence in them.

REPORTED MORTALITY FOR THE MONTH OF JUNE, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	270	154	55	...	3	10	...	2	6	18	11	11	11	...	2
Suburbs	275,615	909	271	97	...	13	8	...	4	5	19	29	21	13	1	...
NEW ZEALAND.																
Auckland	31,268	72	54	30	25	...	2	...	1	...	1	7	2	3	...	...
Christchurch	16,704	35	26	10	1	...	1	1	...	...	2	4	4	1	...	...
Dunedin	23,302	42	34	24	15	...	1	...	1	3	2	...	1	1	...	...
Wellington	33,786	86	48	13	...	...	2	...	1	...	3	7	1	2	...	...
QUEENSLAND.																
Brisbane	56,075	180	76	26	...	...	8	2	...	2	15	13	...	1	...	...
Suburbs	37,582	139	26	15												
SOUTH AUSTRALIA	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..
Adelaide	38,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TASMANIA.																
Hobart	34,535	107	64	16	1	...	1	...	2	2	6	3	3	2	...	...
Launceston	22,240	64	37	10	...	...	...	...	...	1	3	2	7	1	...	...
Country Districts	97,620	275	90	...	...	...	2	...	1	2	3	...	...	...	...	1
VICTORIA.																
Melbourne	71,881	125	73	220	42	2	4	2	17	6	79	79	54	25	2	6
Suburbs	417,304	1,286	558													
WESTERN AUSTRALIA*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR JUNE, 1893.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	65·5	54·1	41·5	...	5·07	18	82	...
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	69·2	57·8	39·	30·028	11·030	10	74	...
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	70·2	44·3	45·0	...	1·70	11	77	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	58·	41·5	30·	...	5·54	15	81	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	57·	47·4	34·	30·003	2·91	18	81	...
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	65·	47·	26·	30·024	1·88	13	85	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	62·3	48·6	33·	29·995	3·21	14	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	...	..	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	64·7	54·	41·7	30·097	7·78	15	86	W.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	69·	50·4	34·	...	3·230	15	73	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

TWO CASES OF PERIPHERAL NEURITIS FOLLOWING THE USE OF ARSENIC.

By Cecil Purser, B.A., M.B., Medical Superintendent Prince Alfred Hospital, Sydney.

◆

Case I.

H. P., aged 40; brought to hospital on November 18, 1890. He stated that he had taken a quantity of cockroach poison about a-quarter of an hour previously. His beard and clothing in front of chest were covered with a green-coloured powder. Apomorphine gr.$\frac{1}{10}$ was injected hypodermically with a good result. The stomach pump was also applied, and it took several washings to reduce the contents to clearness. Some of the powder was analyzed, and it turned out to be arsenite of copper, or Scheele's green. He stated that he had swallowed several spoonfuls of it, washing it down with water. On being placed in bed his temperature was ascertained to be 101·4° F., but it soon fell to normal. He seemed to progress very well for a day or two, but blood was present in the stools. A mixture containing bismuth was administered internally. On the third day his temperature rose to 102·2° F., and it persisted high for 10 days, with but little remission, the highest point being 103·6° F., and the lowest 100° F., during that time; then it fell to normal, and remained so afterwards. As the temperature rose in the first instance the tongue became dry and brown, and was thickly coated. The pulse was full and soft. He was more or less delirious during that period of time, but could be got to talk rationally. On the eighth day he complained of a feeling of "pins and needles" and "electric wires," as he expressed himself, in his legs. He suffered now from insomnia, and was very restless. Bromides having no effect, morphia was administered hypodermically, with good result. Towards the end of the second week he complained of severe burning pain in the epigastric region, and he was very tender over the stomach area on pressure. Bismuth and cocaine were administered internally. He also complained now of a feeling of numbness in the legs and fingers, and occasionally had spasmodic cramping of the arms, almost of a tetanic nature. There was also loss of power in the hands, arms and legs. Pressure of the muscles of the legs and along the course of the nerves caused intense pain, especially noticed along the course of the anterior crural nerve and on pressing the calf muscles. The muscle now felt very flabby, and there was marked wasting; no reflexes to be obtained, either knee or plantar, but abdominal reflexes were present. These symptoms developed during the third week. He also now showed a characteristic wrist-drop, but the foot was not so well marked. There was now no trouble with the bowels, and the gastritis had cleared up. The bismuth mixture was stopped, and one containing liquor strychniæ ♏v was administered thrice daily. He improved very slowly, and in the beginning of December was still very weak in the hands and legs. The pain was not so marked, but was still evident. Systematic massage and galvanism were now resorted to; and in the first week in January hypodermic injections of liquor strychniæ ♏v were started, given once daily. He could move his legs, but not his feet. From this on he gradually improved. When the electrical tests were first employed there was no response to the interrupted current, but an increased response to the galvanic. The latter slowly returned to a normal reaction, while the response to the interrupted current returned very slowly.

The hypodermic injections were gradually increased up to thrice daily, and after he had been treated thus for about three weeks, the muscles of arms and legs began to twitch slightly. The strychnine was now discontinued, massage and faradization being persisted in.

On May 5 he could walk arm in arm with a companion, but could not stand unsupported. He was discharged on May 29, being sent to the Carrington Convalescent Hospital. He was then able to walk with the aid of crutches. He presented himself at the hospital two months later, when he was very well and could walk without any support, but the lower linbs were very stiff, and he had a somewhat ataxic gait. It should be mentioned that previous to his taking the poison he had been drinking heavily for a week. He had been accustomed to take liquor for some time, but not to excess.

Case II.

E. T., aged 28 years, was admitted to the hospital on 17th January, 1893, with an ulcer on the right cheek. It had raised indurated edges, and was evidently epitheliomatous in nature. It was first noticed two and a-half years previously, and had been curetted, and caustic had been used on several occasions previous to admission, but it had recurred each time and had spread rapidly since last interfered with.

On 19th January, under an anæsthetic, the growth, together with subjacent tissues, was removed; and since it was situated very deeply and there was a doubt as to the whole of the growth being removed, it was swabbed out with perchloride of mercury lotion, and a solution of nitrate of silver, 10 grains to the ounce, applied.

On 24th January it was seen that the growth was recurring in the floor of the granulating surface; and since it could not be excised, a paste, consisting of arsenious acid and pulv. acaciæ., equal parts, to be made up with water, was ordered for external application. This was applied to about one square inch of surface every day for about a week, and then every other day for about 10 days. Some hydrochlorate of cocaine was added to the paste at the end of the first week. The new growth took on the form of a slough and most of it separated. The application of the paste was continued, being applied occasionally.

About eight weeks after commencing to use the paste the patient complained of a feeling of numbness in the fingers and feet. The paste was now discontinued. The gait rapidly became ataxic and the fingers clumsy. Sensation became diminished in both legs and feet. The knee and plantar reflexes became abolished. There was complete loss of sensation on the dorsal aspect, and a feeling of numbness in the thumb, first and second fingers of each hand. Both arms felt colder than the rest of the body. He now complained of tenderness in the calf muscles, and pain could be elicited by pressing deeply in the thigh muscles, both anteriorly and posteriorly. A characteristic foot drop developed, but there was no wrist drop. The leg and thigh muscles rapidly wasted. There was no response to faradism in the leg muscles, and only a slight response to galvanism. The muscles reacted in both arms and hands to both currents. A few days after the paste was discontinued his condition was slightly improved, and he made a gradual recovery. For a few weeks he could not walk at all, but the use of the legs returned slowly. He never lost the use of his hands, but they felt very clumsy and he could not pick up small objects. He had no medicinal treatment, but when the tenderness had almost disappeared from the leg and thigh muscles systematic massage and galvanism was adopted.

He was discharged on 25th July, being able to walk fairly well without any assistance. There was no appearance of a new growth at the site of the operation after the removal of the slough caused by the paste, but it had recurred in the glands of the neck on the same side, and was situated too deep for removal.

A CASE OF DERMATITIS HERPETIFORMIS, ASSOCIATED WITH HYPERKERATOSIS OF THE PALMS AND SOLES. [*With coloured Plate.*]

READ BEFORE THE N. S. WALES BRANCH B.M.A.

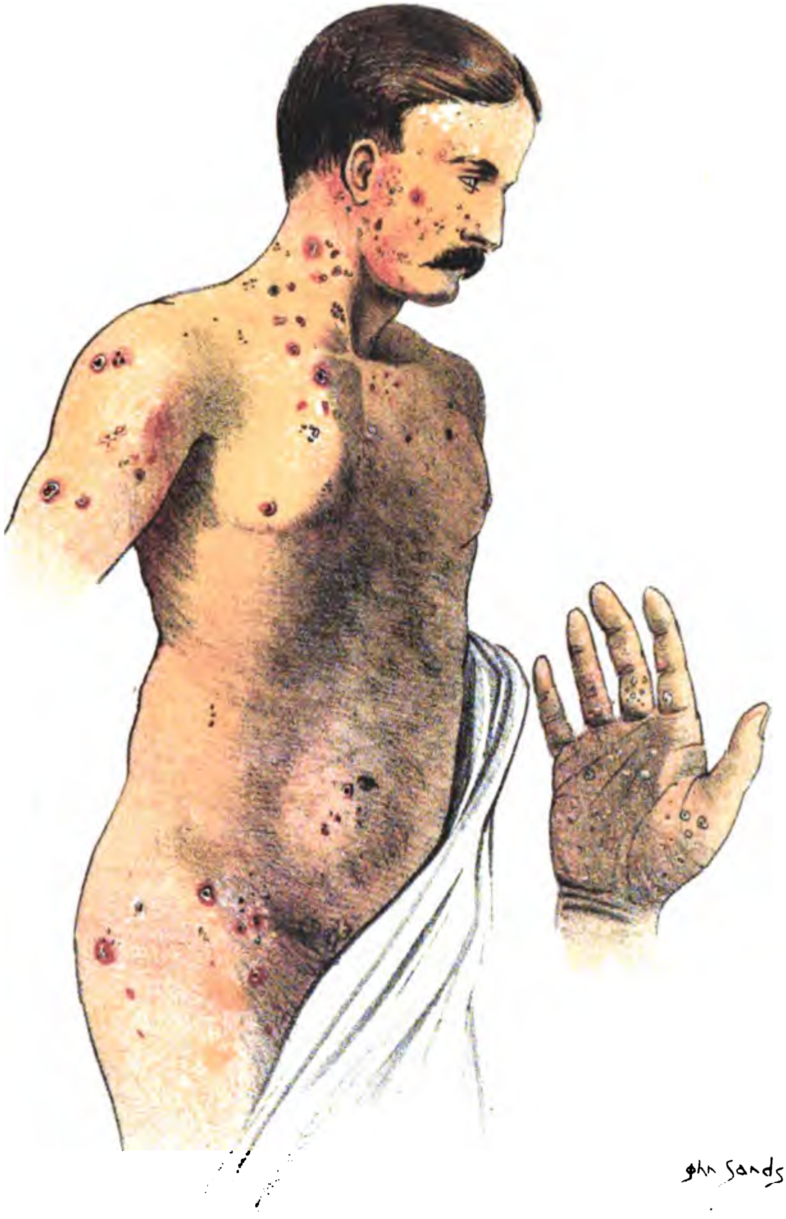
BY W. McMURRAY, M.D., OF SYDNEY.

THE plate I have placed in your hands represents a case of dermatitis herpetiformis, associated with symmetrical hyperkeratosis of the palmar and plantar surfaces. Two cases of a similar nature have been recorded by Besnier and Brocq. The association of these two conditions being rare is my reason for bringing this case under your notice. The artist, Mr. Cayley, has not depicted the careworn, somewhat nervous expression of the patient, as well as the presence of rosacea on the alæ of the nose; but with these exceptions the other lesions are accurately shown.

Family History.—A. L., aged 30; father died from thoracic aneurism at 57; mother died, aged 68, from Bright's disease. Seven children were born in the family—four sisters and three brothers—all of whom are healthy.

Personal History.—During infancy the patient was delicate. At puberty he was much troubled with somnambulism, finding himself on one occasion walking on the roof of his father's house. At eighteen he had a severe attack of enteric fever. Ten years ago the skin disease from which he is now suffering showed itself first in the lumbar region. From his description it was certainly at that time of an urticarial character, and followed by erythematous eruptions with papules, vesicles and blebs of variable shape, size and outline. Paroxysmal exacerbations of the disease occurred generally every five or six weeks, preceded by languor, debility, feeling of lassitude and depression. So pronounced were these symptoms that he could accurately foretell the onset of an attack. As a result of these attacks his general health suffered, and he became sleepless, irritable, anxious and dyspeptic. At a later period he observed that at intervals of several weeks the palmar and plantar surfaces would become hot, swollen, stiff, dry, purplish, and very tender, having a tense feeling. He never suffered from hyperidrosis. The patient informs me that since the disease developed he has been almost continually taking

SUPPLEMENT TO THE AUSTRALASIAN MEDICAL GAZETTE
SEPTEMBER 15th 1893.



Dr. W Mc. MURRAYS CASE OF DERMATITIS HERPETIFORMIS.

some of the preparations of arsenic, and has visited the thermal springs in New Zealand without experiencing any relief.

Present State.—The patient is of medium height; has a careworn expression and sallow complexion. On the sides of the nose there is well-marked rosacea. Situated in front and behind the right ear is a continuously, irregularly outlined erythematous patch, upon which are vesicles—some grouped, others isolated—as well as blebs and pustules. On the scalp, forehead and sides of the neck there is a similar condition seen, but not so extensive. Some of the vesicles in this latter situation do not stand on an inflamed surface, but on apparently normal skin throughout their entire course. At first sight the distribution of abnormal pigmentation upon the trunk is striking, and most markedly in the axillæ and ilio-inguinal folds. On the integument numerous multiform eruptions are seen, consisting of vesicles, papules, bullæ and crusts, all of which are, more or less, symmetrical and bilateral, attended with the same subjunctive symptoms, namely, burning and itching of a distressing character. The pruritus is most marked in the vesicular variety. On the extremities the eruptions are most abundant on the extensor surfaces of the upper, and flexor of the lower.

Upon the palms and soles the horny layer is paler in colour and thicker than normal. The main lines are deeper, and upon their borders are numerous warty excrescences, chiefly running parallel. The nails are longitudinally striated, brittle and atrophic.

Etiology.—Many theories have been advanced as to the cause of this condition. The generally-accepted opinion now is that it is a trophoneurosis. My case goes to support this view. The lesion on the palms and soles, although occurring on parts exposed to pressure, are independent of the occupation of the patient.

Diagnosis.—The polymorphous character and symmetry of the eruption; its chronic course and tendency to occur at regular intervals; the pigmentation and well-marked subjunctive symptoms, leave little doubt as to the nature of the disease.

Remarks.—Hyperkeratosis by itself is an uncommon affection, and more so associated with dermatitis herpetiformis. It is well known that arsenic, taken for a long period, produces pigmentation of the skin. Hutchinson and Crocker have recorded cases where the discolouration assumed the tint of Addison's disease. This drug also produces thickening and warty growths on the palmar and plantar surfaces; and when given for the relief of cutaneous diseases sometimes leads to difficulty in determining whether or not it is the cause of some of the lesions.

My impression is that the lesions on the hands and feet in this case are due to the prolonged use of the drug, as its cessation has been followed by improvement in the condition. He has also improved in his general health, gained in weight, and the languor and depression have disappeared.

Lyons' Terrace, Hyde Park,
Sydney, August, 1893.

POISONING WITH ANTISEPTIC TABLOIDS.

By Jas. Struthers, M.D. Aberd.

Although, owing to my absence at the time of the occurrence, the details obtained of the following cases are meagre, they may be of some interest.

At 7 a.m. on Saturday, April 15, Lexina R., *æt.* 18 years, swallowed three of the antiseptic tabloids of perchloride of mercury (those supplied in small coloured bottles by Parke, Davis and Co.) Her sisters, Rachel, 9 years, Amy, 5, and Olive, 8, each swallowed one. Lexina felt very sick about 15 minutes later, and began to retch. Beyond remaining nauseated and retching all day she had, she says, no other symptoms till night, when severe pains came on every two minutes. The pains were general, but much more severe in the stomach and down the œsophagus. She suffered extremely all Saturday night, but complained of nothing but pains, lightheadedness, and sickness. She could take no food at all till Sunday morning, when she kept down some milk. The first solid food kept down was on Monday morning. On Monday she was easier, but felt very ill till Tuesday night, when I saw her. She was then tender over the stomach and had pain down the œsophagus; no tenderness or pain in the abdomen except over the stomach. Pulse, 104, weak, but otherwise normal; tongue very red, relaxed, slightly furred centrally. Feels very depressed and a little lightheaded still. Like her sisters, she had castor oil on Saturday and Sunday nights, and Monday morning, which operated each time in each case.

She continues still (May 6) to feel the depressing effects of the poison. Of the three children the eldest, *æt.* 9, suffered most, being almost collapsed by 9 a.m. on Saturday, turning "all colours" and apparently being moribund. They were all violently sick all day, but unlike the elder girl, recovered much the first night, improvement beginning about 8 p.m. on Saturday.

About three hours after they took the tabloids, "jerks" were noticed in one or more of the children, but in which is not clear. Rachel ate an orange on Saturday evening, but vomited it, and none kept anything solid down until Sunday morning. In none of the four was there purging until after castor oil was given on Saturday night.

The maximum dose of this strong irritant poison is given as one-eighth of a grain. The directions on the bottle say that for a solution of 1-1000 one tablet will suffice for five ounces of water. It follows that there is in each a weight of corrosive sublimate equal to 2·4 minims of water, almost precisely two and a half grains. Thus the younger children took twenty times, the eldest one sixty times, the maximum dose, yet all recovered. There will always be a risk of similar cases whilst poisons are made up in tablets so exactly similar to certain "lollies."

Rylstone, N.S.W.,
May 6, 1893.

CLINICAL NOTES OF A COUNTRY SURGEON.

By Eustace H. L. Pratt, M.D., M.R.C.S. Eng., of Tamworth, N.S.W.

I. Vesical Calculus in Child, Weighing Two Ounces and Five Drams—Suprapubic Operation—Recovery.

M. O'S., a boy *æt.* five years, son of a railway engine-driver, was brought to me with a history of long-continued suffering and trouble in making water and going to stool. The child was much emaciated and the penis was erect, which the mother told me was nearly constant. On examination with a sound I at once struck a stone, and on careful investigation it was apparent that the stone was of very large size, so large that I at once advised the operation above the pubes, which was consented to. With the kind assistance of my friend, the late Dr. A. T. O'Reilly, I operated on the little fellow, under chloroform, and without much difficulty I removed the stone —*suprapubic*—which proved to be one inch and a quarter in breadth by one inch and three-quarters in length, and, on section, was *mixed*, there being alternate layers of uric acid, oxalate of lime, and phosphates. The weight was two ounces and five drams. The child made a good and rapid recovery, the urine coming by the urethra from the first, and the wound closing entirely in three days under iodoform dressings.

II. Two Large Stones in a Female Bladder, One being Crushed Easily (Phosphatic) the Other being so Hard that Cutting and Extraction was Necessary—Recovery.

Mrs. J——n, aged 45 years, the wife of a farmer on the Richmond River, came to me for a supposed cancer of the womb, for which she had been treated in Sydney and elsewhere. She was weak and emaciated, and had evidently been suffering for many months. On examination the womb proved to be healthy, but a sound soon discovered a stone in the bladder, which on more careful manipulation was ascertained to consist of two stones, if not more. My patient, having taken up her residence near me, at Ryan's Hotel, Lismore, I devoted ten days to improving her general health, when, under bichloride of methylene, and with the valuable assistance of Dr. W. H. Tomlins, I attempted to crush both stones, but succeeded only in crushing one, the other turning out too hard for the lithotrites. The stone that was crushed was phosphatic, and the dried *debris* of it weighed one ounce and two and a half drams. Mrs. J——n made a good recovery from this operation, and twelve days afterwards I again operated, this time cutting, and following with slight modifications Lisfranc's vestibular method, extracting *whole* a large and very hard mulberry calculus, measuring one inch and a quarter in length, and weighing one ounce and five drams. Two little bits of the outside shell of this stone had been broken off by the lithotrite. The patient made a good recovery in all ways, and a few months afterwards had gained two stone in weight.

III. Stone in the Urethra, Necessitating Cutting to Extract—Recovery.

Mr. R. H——y, aged fifty years, a squatter and a strong, well-kept man, was brought to me at night, suffering great agony and unable to pass water. At first I judged the case to be one of ordinary retention from stricture, but on introducing a No. 8 silver catheter I struck a hard gritty substance in the prostatic urethra before the bladder, which I tried to push back into the bladder, but unsuccessfully. I then passed in a pair of curved, urethral alligator forceps and tried to grasp the foreign body, whatever it might be, but the hæmorrhage was so free that I desisted, and, with the consent of Mr. H., at once cut down upon what turned out to be a uric acid calculus, about the size of a kidney bean, and removed it. There was immediate relief, with no trouble from the wound (I kept a No. 12 elastic catheter in the bladder) and the patient was well in a few days.

IV. STONE IN THE BLADDER, WEIGHING FIVE OUNCES (THE DRIED DEBRIS), CRUSHED AND REMOVED AT ONE SITTING WITHOUT CHLOROFORM.

This was a remarkable case, as the patient—a Mr. R. McK., of the Richmond River—seemed to have suffered so slightly from what proved a very large stone, and moreover, *smoked his pipe* the whole time (one hour and a quarter) I was occupied in the operation. He is a fine, handsome Scotchman, of 62 years, and has always had good health, and followed an active, out-door life. He had had very little trouble from the bladder, although carrying about such a large stone, and indeed consulted me more about his stomach (dyspepsia) than any other trouble. The stone was very brittle, the dried debris looking more like limestone than any calculus I have ever seen. He made a good and rapid recovery; in fact his bladder seemed to be entirely *non-sensitive.*

V. COMPOUND COMMINUTED FRACTURE OF THE ANKLE—RECOVERY, WITH A GOOD LEG AND SOME MOVEMENT OF THE JOINT.

This case is remarkable as showing the extraordinary possibilities of modern antiseptic surgery when backed up by youth and a fine constitution. The patient—Mr. Pat. Howlett—a strong, steady and handsome young Irishman, standing six feet in his stockings and only 23 years of age, had the misfortune of having his ankle terribly smashed up by a tree falling on it. He was removed some 20 odd miles to the Hospital, where two doctors—men of very high attainments—advised amputation; but as the patient and his friends objected to this, and said that he might as well be dead as to lose his leg, they asked me to try and save it for him. And in this I succeeded at the expense of infinite pains and trouble, lasting over 12 months. For the first few weeks I kept the leg in a Salter's cradle on a modification of a Sayre's splint (as I had to remove bits of bone almost daily) made for me by a very clever and kindly inventor (Mr. Anschau, the Postmaster at Lismore) from my designs. My dressings were, all through, *boric acid* in one form or another. After about six weeks I was able to put the leg in plaster of Paris with light steel laths, leaving numerous large "*windows,*" but it was seven months before I was able to use a MacIntyre's splint. However, my patient's health kept up well, and after 12 months I had the pleasure of seeing him again on his legs, and when I last saw him, much to my surprise, found there was decided movement at the ankle joint.

AN ANALYSIS OF THIRTY CASES OF GLYCOSURIA.

READ BEFORE THE SOUTH AUSTRALIAN BRANCH B.M.A.

BY R. HUMPHREY MARTEN, M.B., B. C., CANTAB., M.R.C.S. ENG., L.R.C.P. LOND.

BY the term Glycosuria I include all those cases in which I have detected glucose in the urine, both typical diabetes and the temporary presence of sugar.

During the last four years I have made a practice of examining the urine of nearly all the patients who have consulted me, I cannot say all, for I know I have missed diagnosing one case of glycosuria, and there may be others besides. I keep a record of these examinations, and I was much surprised, on looking through them, to find that I had had as many as thirty cases.

The first point that struck me was the very various reasons for which patients came for advice. Out of the 30 cases 13 either knew, or I myself had previously heard, that they had sugar in their urine before consulting me. Three of these I saw in consultation with their own medical men. Of the remainder, two, of course women, came complaining of pruritus vulvæ; three others, all men, stated that they had entirely lost their sexual desire, and one of these also had psoriasis. Two complained of eczema: one had a patch on the back of the hand and another a patch round the umbilicus. Two had thirst as the first symptom. Two others, one a gentleman, and the other a lady, complained of peculiar neuralgic pains in their backs and legs. Two others complained of great wasting and muscular weakness—one I was attending for a fatty heart—one when first seen was the subject of apoplexy—one complained of vomiting, but also had albuminuria, and one complained of obesity and morning vomiting.

Of the ones I knew beforehand to be suffering from glycosuria, two came about diabetic phthisis, one for failing eyesight from commencing cataract, and one for gall-stones.

Two out of the 30 had accompanying albuminuria, and four had previously suffered from gout; three had valvular disease of the heart.

I think the above list shows how extremely important it is to examine the urines of all patients for sugar.

I invariably use Fehling's solution for test purposes, and Pavey's ammonio-cupric standard solution for quantitative analysis. You are told in works on urinary analysis to test all urine with a specific gravity of over 1030 for sugar, but from my observations I now always examine for sugar first and take the density afterwards, as I find many urines containing sugar having much lower specific gravity than 1030.

In one interesting case, which I refer to above, I missed examining the urine, and a friend of mine, who was more cautious than I was, detected it, and attended the patient till her death. I saw her for a small spreading ulcer on her leg, about which I took very little notice. A few weeks afterwards I heard of her decease, and on enquiry I found, much to my surprise and chagrin, that she had died of diabetes, and of course this explained the non-healing of the ulcer.

Another case which points very conclusively to the necessity of testing all urines, especially when in doubt or in search of a diagnosis, is one where a patient complained for some time to her medical man of weakness and loss of flesh; he took no notice of this, and she happened one day to be speaking of her symptoms to a well-known veterinary surgeon, who at once asked her if she was passing much urine, and if it contained sugar. After this she came to me, and I found her urine carrying 10 grains of sugar to the ounce.

Out of the 30 cases, nine have already died, either directly from the glycosuria or some intercurrent disease, and one is practically dying at the present time. Out of these nine, five have died of diabetic coma, two of diabetic phthisis, one of heart disease, and one of cerebral hæmorrhage. Of the remaining 21, one I am unable to trace, but I presume she is still alive; four have entirely lost their sugar for some months. In six its occurrence intermits: three are decidedly worse, and the remainder, as far as I know (and I think they are still mostly under my care), are *in statu quo*. Two of those who died were brother and sister.

The average age of the patients has been 56 years, the youngest 18 (died of acetonæmia), and the oldest is 75.

The longest time during which the patient has been known to have sugar is between seven and eight years. The proportion of cases is two males to one female.

With regard to the treatment I adopt, I always give them a printed diet sheet, which they have to attend to more or less rigidly, according to the severity of the symptoms, the results obtained, and their convenience for obtaining the proper dietary scale. In the most severe cases I always insist on the taking of gluten bread; the less severe have brown bread or whole meal bread toasted. They are all told to give up sugar entirely and take to saccharine, but I find they do not all do so.

I always prescribe codeia in pills of one, two or three grains, according to the amount of sugar they pass, the length of time they have taken the drug, and the results produced.

For the cases of pruritus vulvæ I always order Lawson Tait's solution of hyposulphite of soda —ʒi to a quart.

Before closing this paper, which I am afraid contains too many figures to be very interesting, I wish to refer to one or two points of interest.

First with regard to Life Insurance: I think none of us would knowingly pass an applicant for insurance whose urine contained sugar—and as a digression, I think no life can be considered to be profitably or properly examined without the urine has been tested for both albumen or sugar—the urine also ought to be passed at the time of the examination, either in the presence or in the house of the referee. I know one case where an applicant with diabetes presented a friend's urine for examination, but the medical examiner was too sharp for him, and insisted on the urine being passed before him, and this was loaded with sugar. Another point is—If there is a family history of diabetes, should you refuse or only load the applicant? If there was only one member I should only load; if more than one, refuse. My own family is one in point: My own father, one of his sisters and one of his brothers have all died of diabetes, out of a family of eight. My own father had what none of my patients have suffered from, viz., peripheral neuritis, although some of my patients have lost their patellar reflexes. The first symptom of all my own relations has been the dropping out of the teeth without any previous decay.

The object of this paper is to impress upon the members of this Society the necessity of examining the urines for sugar of all persons consulting them, whether they present symptoms of diabetes or not. I may add that during the four years I have only had one case of diabetes insipidus.

THERE is now in the Press a collection of papers on HYDATID DISEASE by *the late Dr. J. Davies Thomas, of Adelaide.* Some have appeared already in the transactions of the South Australian Branch of the British Medical Association and of the First and Second Intercolonial Medical Congresses; but the most important papers, dealing with hydatid disease of the organs within the abdomen, of the bones and of the integuments, &c., have never been published. The papers will be seen through the Press by Dr. Lendon, of Adelaide, and the book will be published by L. Bruck, Medical Publisher, Sydney.

PROCEEDINGS OF SOCIETIES.

QUEENSLAND MEDICO-ETHICAL SOCIETY.

At the last Annual Meeting of this Society, held in Brisbane, the President, Dr. D. Hardie, delivered the following

Presidential Address.

The report of Council that has just been read by the Honorary Secretary tells its own tale, and shows that during the past year this society has, for its numbers, exhibited considerable vitality and concerned itself chiefly with matters pertaining to the public health of the colony. This is a movement in the right direction, one which undoubtedly received a well directed impetus by the suggestive presidential address of my predecessor in office, Dr. Thomson, and one which deserves our heartiest and continued support.

For long—perhaps too long—the subject of main interest to the profession has been the diagnosis and cure of disease; but thanks to the profession as a whole, and more especially to a few zealous workers in sanitary science, this has been supplemented by what is perhaps of more initial value, its ætiology. I do not say that the treatment of disease when it arises is not of the first importance; the advances made in recent years in pharmacology is sufficient proof of the interest and value of drugs to the therapeutist. Moreover, it has to be borne in mind that ætiology has already largely entered into the treatment of disease, in so far that our first and main object has been to find out, and if possible, to remove its cause. If a patient consults us for some gastro-enteric disorder, and we find on enquiry that it is due to the eating of some indigestible article of diet, no treatment is of any avail until by a suitable aperient we remove the cause. It is possible that if it be of a more acute and specific character, such as enteric fever, or it by local and systemic symptoms, aided by the microscope, there is distinct evidence of the presence of anchylostoma duodenale in the intestinal tract, the removal of the cause may be attended by the greatest possible difficulty, but our object in treatment is still to some extent the same. In the former instance we are dealing with a condition whose cause in the great majority of cases may easily be removed, in the latter instances with diseases whose cause may be removed with difficulty.

So far, then, the cause of disease *in its relation to treatment* has always received at the hands of every intelligent physician the attention it certainly demands. But the ætiology of disease does not begin here. If caused by germs, what is the natural history of these micro-organisms prior to their introduction into the body; where do they come from; under what atmospheric conditions do they best germinate in nature; under what circumstances and through what media are they introduced into the body? These are points that are now engaging the attention of medical men all over the world, and may be summed up in the more general and comprehensive one: What are those causes or forces that operate towards the development of disease?

I do not intend to-night to give a *resumé* of what has already been done in this respect; this the medical literature of the day provides in a far more interesting manner than I could give. Moreover, I very much fear that the attempt, if made, would be qualified by the confession that if we are beginning to know something of the causes that lead to disease, we have still much, very much, to learn. It is evident, however, that in seeking for light our energies are directed in the proper and direct channel, and it is to be hoped that Burdon Sanderson, in his lectures on the origin and nature of infectious disease, is right when he says: "It seems to me to require no prophetic power to foresee that we are on the very threshold of discoveries in medicine such as will eclipse in their splendour all that have preceded them."

Believing then, as we all must do, that in too many cases life's journey is begun and carried on with but a faint glimmering of those "perils of the deep" that lie before us, the object I shall have in view briefly, is the less pretentious one of pointing and tracing out in our chart a few of those rocks upon which, in this journey of ours, it is possible to strand. It is true that we may know there are "rocks ahead," but it is possible we have not definitely ascertained from the government chart where to look for them, and in consequence, our little craft, in spite of the signal of danger, may be wrecked before even we recognize that danger exists. If luckily, even in our ignorance, we escape, the credit is not ours; it belongs rather to the *vis medicatrix*, and perhaps still more to the *vis protectrix naturæ*, that so faithfully stand by us in our time of need. It may also be true that a thorough knowledge of this chart may not save us from disaster, but at least it will be conceded that being forewarned we shall also be forearmed, and more likely to bring our frail ship safely over the allotted space of three score years and ten. Such at least is the lesson we learn from our good old friend, the trusted mariner. We know that the intelligent, cautious, and successful captain knows not only that there are dangers in the way, but also the exact spot where these are to be found. So also is it not only necessary, but possible, for every layman to make himself acquainted with the risks he has to run through disease, and at which stage of his existence these may be expected. For the first few years he is under the pilotage of his parents or guardians, as the case may be, and cannot therefore be held responsible; but even so, his ultimate responsibility is all the greater when he remembers that possibly he also may in turn pilot for a time those who follow.

Leaving, meantime, out of consideration, the matter of forecasting disease from a seasonal and meteorological point of view, the following questions thus suggest themselves: (1) what class of disease contributes most to our mortality? (2) at what age may we look for the highest and lowest death rate generally? (3) at what age does each class of disease mainly prevail. An answer to these may be obtained by referring to the vital statistics issued by the Registrar-General, and for obvious reasons I shall confine my few remarks to those of Queensland alone. I may also premise that the figures used are not representative merely of one year, but for the purpose of arriving at a fair average, cover a period of five years, 1887-1891.

I.—Most Common Class of Disease in Queensland.

According to the following condensed table, which represents about 75 per cent. of the total mortality, diarrhœal diseases stand highest with a percentage death rate of 13 to deaths from all causes, while that of all gastro-enteric diseases, including diarrhœa and dysentery, is as high as 23, or nearly one-fourth of the total mortality. Next come diseases of the nervous system with 10 per cent., and of which "convulsions" form fully one-half. This is closely followed again by respiratory diseases and phthisis, each with nine per cent., these together forming 18 per cent., or nearly one-fifth of the total death rate. Accidents of all kinds cause about one death out of every 10, and fully one-third of these are from drowning. An excess of deaths from this latter cause may naturally be looked for in a climate where the water in the hot months of summer invites one to indulge in the luxury and pleasure of a bath in the ocean or waterhole; but even so, the number of deaths from drowning is alarmingly high. Compared to sunstroke, which may also for similar reasons be expected, the rate also is high, for we find there are five deaths from drowning for every one from sunstroke.

Diseases of the heart and circulatory system contribute five per cent., laryngeal diseases four per cent., and typhoid fever three per cent. of all deaths. This is certainly a high death rate for typhoid fever, but not higher than we should expect when the climatic and other conditions generally be taken into account, and compares favourably with that from laryngeal diseases, croup, diphtheria, and laryngitis. These together form a not insignificant item in the death rate of Queensland, and more especially in early childhood, the proportion of deaths from this cause, as we shall see, being then exceedingly high—higher, indeed, than that of any other class of disease. One satisfactory feature of the figures in this table is the comparatively low mortality from the more important zymotic diseases, for leaving out diarrhœa, diphtheria, and enteric fever, the ratio of deaths from whooping cough, influenza, measles, scarlet fever, and smallpox combined to deaths from all causes is only 1·67 per cent., and of this whooping cough contributes fully one-half.

TABLE SHOWING THE PERCENTAGE OF DEATHS FROM THE FOLLOWING CLASSES OF DISEASE TO THE DEATHS FROM ALL CAUSES (1887-91

Diarrhœal Diseases	Cholera Nostras ·52 Diarrhœa .. 6·35 Dysentery .. 3·09 Enteritis .. 2·67	.. .. .. 12·63
Gastro-enteric Diseases (including Diarrhœal Diseases)		.. 22·77
Diseases of the Nervous System	Convulsions .. .. 5·27 Other Nervous Diseases 5·10	.. .. 10·37
Diseases of the Respiratory System	Pneumonia .. .. .. 3·82 Bronchitis .. .. .. 3·04 Other Respiratory Diseases 2·34	.. 9·20
Phthisis ..	.. ..	.. 8·75
Accidents	Drowning .. 3·40 Sunstroke .. ·72 Other Accidents 5·54	.. .. .. 9·66
Diseases of the Heart and Circulatory System	.. ..	.. 5·03
Laryngeal Diseases	Croup .. 1·18 Diphtheria 2·14 Laryngitis ·32	.. .. .. 3·64
Diseases of the Urinary System	.. ..	.. 2·02
Typhoid Fever	.. ..	.. 2·87
Whooping Cough	.. ..	.. ·93
Influenza	.. ..	.. ·40
Scarlet Fever ..	.. ..	.. ·33
Measles ..	.. ..	.. ·01
Smallpox	.. ..	.. ·00

II.—TOTAL DEATH RATE AT VARIOUS PERIODS OF LIFE IN QUEENSLAND.

The figures in the following table very fairly show the relative degree of mortality from infancy up to old age. We find that 29 per cent. of the mortality from all causes occur under one year, 36 per cent. under two years, and fully 41 per cent. under five years of age. The death rate now rapidly falls, and from the tenth to the fifteenth year is lower than during any other quinquennial period of life. If we compare the number of deaths that take place under five years of age to those between the ages of five to twenty, we shall find there are fifteen deaths in the former period for every one in the latter. After the twentieth year the rate rises decidedly, remains high until the thirty-fifth year of age, and thenceforward undergoes a gradual decline to old age.

TABLE SHOWING THE RATIO OF TOTAL DEATHS IN EACH QUINQUENNIAL PERIOD OF LIFE TO DEATHS AT ALL AGES (1887-91).

Under 1 year	29·77
„ 2 „	35·98
„ 5 „	41·57
From 5 to 10 years	2·76
„ 10 „ 15 „	1·48
„ 15 „ 20 „	3·95
„ 20 „ 25 „	7·34
„ 25 „ 30 „	6·88
„ 30 „ 35 „	5·87
„ 35 „ 40 „	4·55
„ 40 „ 45 „	4·29
„ 45 „ 50 „	4·27
„ 50 „ 55 „	4·28
„ 55 „ 60 „	3·27
„ 60 „ 65 „	3·05
„ 65 „ 70 „	2·13
„ 70 „ 75 „	1·83
75 and upwards..	2·48
	100·00

III.—RELATIVE DEATH RATE FROM EACH CLASS OF DISEASE AT VARIOUS PERIODS OF LIFE IN QUEENSLAND.

We have seen to what extent each class of disease contributes to the general mortality, as well as their varying degrees of severity as a whole, during each quinquennial period. It remains now to connect these two together, and to ascertain what diseases mainly prevail from one period of life to another. This will be seen in the following table :—

TABLE SHOWING THE PERCENTAGE OF DEATHS FROM EACH CLASS OF DISEASE TO THE DEATHS FROM ALL CAUSES IN EACH QUINQUENNIAL PERIOD OF LIFE.

	Under 1 Year.	From 1 to 2 Years.	From 2 to 3 Years.	From 3 to 4 Years.	From 4 to 5 Years.	Under 5 Years.	From 5 to 10 Years.	From 10 to 15 Years.	From 15 to 20 Years.	From 20 to 25 Years.	From 25 to 30 Years.	From 30 to 35 Years.	From 35 to 40 Years.	From 40 to 45 Years.	From 45 to 50 Years.	From 50 to 55 Years.	From 55 to 60 Years.	From 60 to 65 Years.	From 65 to 70 Years.	From 70 to 75 Years.	From 75 and Upwards.
Gastro-enteric Diseases ..	45	42	15	12	9	40	9	7	19	13	9	10	10	13	14	15	16	15	17	13	9
Respiratory Diseases ..	8	17	25	22	19	11	9	7	10	10	10	11	8	8	9	12	12	15	14	15	10
Laryngeal Diseases ..	1	15	32	34	28	7	19	1	·2	·2	·1	·5	·1	·2	·0	·3	·1	·2	·0	·0	·0
Nervous Diseases	17	12	10	12	10	15	10	8	4	5	4	4	7	7	9	8	10	10	11	9	8
Circulatory Diseases ..	..	..	..	..	..	·4	3	11	3	4	4	6	9	11	13	13	14	14	14	12	7
Urinary Diseases	..	..	..	..	..	·4	1	1	2	2	2	3	3	3	4	3	4	5	6	4	5
Phthisis	..	..	·	..	..	·4	1	3	22	23	25	23	18	15	12	8	7	6	3	1	·3
Accidents	..	..	..	..	..	4	35	29	13	13	15	16	15	12	13	11	12	8	7	4	·3

Here we find that under one year of age gastro-enteric diseases (including deaths due to dentition, thrush, want of breast milk and tabes mesenterica) contribute as much as 45 per cent., or nearly one-half of the total mortality; nervous diseases (including convulsions), 17 per cent.; diseases of the respiratory organs, 8 per cent.; and laryngeal diseases (diphtheria, croup and laryngitis), only 1 per cent. Between one and two years of age gastro-enteric diseases still maintain a high rate—forming 42 per cent. of the whole; respiratory diseases rise to the second place with 17 per cent.; nervous diseases fall to 12 per cent., while laryngeal diseases suddenly rise so as to contribute as much as 15 per cent. of the total mortality.

From two to three years of age gastro-enteric diseases fall to the low percentage rate of 15, so that instead of forming nearly one-half it now only forms about one-seventh of the total death rate, while laryngeal diseases now occupy the premier position, and contribute as much as 32 per cent., or nearly one-third of the deaths from all causes. Next come respiratory diseases with 25 per cent., and nervous diseases with 10 per cent.

From three to four years of age laryngeal diseases still maintain the first place with 34 per cent., or fully one-third of the total death rate; those of the respiratory organs being second with 22 per cent.

From four to five years laryngeal diseases also assume the lead with 28 per cent., followed again by respiratory diseases with 19 per cent.

From five to 10 years laryngeal diseases again come first with 19 per cent, with the exception of accidents of all kinds, which contribute 25 per cent., or one-fourth of the whole.

From 10 to 15 years the mortality generally is low, and no class of disease seems to be much more common than another, although it may be noted that deaths from accidents are extremely common, and cause as much as 29 per cent. of the total mortality.

From 15 to 20 years of age, phthisis, for the first time, appears as a common cause of death, the ratio of deaths from this cause to those from all causes being 22 per cent.

From this period up to the 45th year, and more especially from the 20th to the 35th, it maintains the leading position, and during this period, as a whole, causes nearly one-fourth of the deaths from all causes. The susceptibility to contract phthisis at this age may be seen when it is remembered that of all the deaths that take place from this cause alone at all ages, 39 per cent. occur between the ages of 20 and 30, and as much as 55 per cent. (or fully one-half) beween 20 and 35 years of age.

From this date to the 75th year and upwards, gastro-enteric diseases again take up the lead, followed closely, however, by diseases of the respiratory, circulatory and nervous systems.

With regard to phthisis it may be of interest to note (as will be seen from the annexed table) that only 8 per cent. are of persons born in Queensland; or, in other words, of all the deaths from phthisis that occur in this colony 92 per cent. are of persons born outside Queensland, and of these no fewer than 41 per cent. die during their first five years' residence here.

Ratio of Deaths from Phthisis for each Nationality to the Total Death Rate from Phthisis for all Nationalities (1887-91).

Australasia	Queensland	8.1	12·3
	Other Australasian Colonies	4·2	
Great Britain and Ireland			44·2
Polynesia			32·1
Other Foreign Countries			11·4
			100·0

As the disease is often of a very chronic and prolonged nature, it may at first sight fairly be assumed that the great proportion of these may have been in the incipient stage of phthisis, or at least in weakly health on their arrival in the colony; but it must be borne in mind that the majority of those (70 per cent.) are Polynesians, who succumb very quickly, and probably in most cases contract the disease subsequent to their introduction into Queensland. Taking these into account, therefore, the percentage of cases that have probably been in the primary stage of phthisis prior to emigration is very much less than 41 per cent; and yet on the other hand it would be unfair to the colony to be credited with a death rate from any cause that is due far more to personal susceptibilities than mere atmospheric or climatic conditions. That Polynesians are more liable to contract phthisis in Queensland than Europeans will be apparent when we bear in mind that 32 per cent. of all deaths from phthisis in the colony occur amongst them, and that according to population their death rate from this cause alone is 17·38 per 1,000 against 1·27 for Europeans and others.

Leaving out of consideration the Polynesian population (which is fully 8,000 for the whole colony), it will be found that 25 per cent. of the deaths from phthisis take place during their first five years' residence here. Without an absolute knowledge of the duration of illness, it is impossible to estimate what proportion of these contracted the disease prior to their arrival in Queensland; but it is highly probable that the great bulk of them may be classed under this category. Moreover, even under these circumstances the disease may become quiescent for some years, and so the patient passes into the second quinquennial period of residence here. It follows, therefore, that if the percentage of deaths during the first five years' residence overestimates the proportion that contract the disease previous to immigration in Queensland, this is more than counterbalanced by the proportion of those who die during the second period, and who are not included in the above calculation. If the second quinquennial period be included with the first, it will be found that (including Polynesians) 58 per cent., and excluding these, 45 per cent., of all deaths from phthisis occur during the first 10 years' residence here.

Probably, therefore, we shall be within the mark in saying that from 35 to 40 per cent. of all deaths from phthisis are introduced from without, and if Polynesians be included the proportion will be considerably higher.

It will be seen from these brief remarks:—

1. That fully 40 per cent. of all deaths occur under five years of age.
2. That diseases of the gastro-enteric and respiratory systems are those most common for all ages as a whole, and cause 22 and 17 per cent. respectively of the total mortality.
3. That gastro-enteric diseases are those most common during the first two years of life, forming, as they then do, almost one-half of the total death rate.
4. That from the second to the fifth year, laryngeal and respiratory diseases are the most common causes of death, and contribute nearly one-third and one-fourth respectively of the total mortality.
5. That from the fifth to the 15th year of life the mortality generally is low, the principal cause of deaths being accidents of all kinds.
6. That from the 15th to the 45th year, and more especially from the 20th to the 35th year, phthisis is the most common cause of death.
7. That after this date to old age gastro-enteric disease, and those of the respiratory, circulatory and

nervous systems contribute fairly equally to the general mortality.

These, then, are the main rocks upon which we may be wrecked, and the period of life when they may be expected and looked for. The one pre-eminently conspicuous above all others is met with in the first two stages of our voyage through life in the form of disorders of the digestive tract; two minor, though highly important ones—laryngeal and respiratory—now face us for the next three years, and having passed these our progress for several years is fairly safe and uneventful. Still, however, one stumbling-block of huge dimensions remains to be passed in mid-life, namely, phthisis—one for which as yet no true specific has been found, and that, unfortunately, carries off the fairest and best flowers of the land.

I have said that the critical period of our progress through life is passed under the pilotage of those who are supposed to know the way and the dangers we have to run. How great, therefore, is the responsibility of these pilots! How much greater still is our responsibility—members of the medical profession, who are entrusted with teaching and showing them the way. Let us hope that the Medico-Ethical Society will not fail to do its duty in this respect, and stand by its acquired motto—*Salus populi suprema lex.*

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Monthly meeting held at the Adelaide Hospital on 27th July, 1893. Present: The President (Dr. Poulton), Vice-president (Professor Watson), Treasurer (Dr. Corbin), Secretary (Dr. Swift), Drs. Way, T. K. Hamilton, J. A. G. Hamilton, Borthwick, Hayward, J. C. Verco, Morris, Singleton, Todd, Cleland, Bickle, Lawrence, C. Magarey, Clindening, Lendon, Stewart, Powell, Harbison, Robertson, Shepherd, Seabrook, H. H. Wigg and Giles.

Pathological Exhibits.

Malignant disease of rectum, also inguinal colotomy secondary deposits, by Dr. Poulton.

Multilocular cyst of left ovary, removed 25th July, contents dark grumous fluid; the fallopian tube is seen running up along its surface; by Dr. Lendon.

Living Exhibits.

Colloid of omentum, by Dr. Verco.

Dr. Swift showed a boy, *æt.* 16, who said he had had an ulcerated throat for three months. There were several patches of white secretion on the right tonsil, and on the left there was a wing of secretion with a clear, rather inflamed centre. He called it chronic follicular tonsillitis, but this term did not quite explain the condition.

Dr. T. K. Hamilton exhibited the following cases:—

Case No. 1—Melanotic Pigmentation of the Cornea and Conjunctiva.

C. C., aged 44, gave a history of having his right eye bad for three years past, and the following conditions were present:—Conjunctiva of both upper and lower lids thick and granular; Cornea vascular over its upper half; to the outer and lower side a fleshy panus, extending from the mid-pupillary area to about 3m.m. from the corneal margin, and from this point above to about 9m.m. below, and for about ½c.m. transversely. These surfaces were covered with a closely-adherent and black pigmented mass, with four enlarged vessels running into it from below; vision only h.m.

As soon as the granular condition of the lids was cured, the pigmented mass was removed by careful dissection from both cornea and conjunctiva. This left a large exposed surface. In order to prevent a symblepharon-like contraction of this surface, two vertical conjunctival flaps were transplanted from each side of the cornea by Teale's method, twisted on their pedicles and united below. The eye has done well. There has been no recurrence of the pigmentation. There is no deformity, and the vision has improved to F. at 2m. and J. 20.

The case is of interest on account of the pigmentation having invaded the cornea. Pigment deposits are not uncommon on the conjunctiva, but very rare on the cornea.

Case No. 2—Traumatic Symblepharon and Cure by Transplantation of Flap from the Lip.

E. Q., aged 34 (kindly sent to me by Dr. Gosse, of Wallaroo), got a splash of molten metal in his left eye two years ago, which resulted in adhesion of the lower lid to the globe and close up to the cornea for about 1c.m. transversely. The adhesion caused considerable restriction of the movements of the eye, and a small spot of xerosis has appeared on the cornea close to the margin of the adherent lid. Both on account of the extent of surface, which required covering after the lid was freed, and because of the commencing xerotic change, it was deemed advisable to transplant some new tissue and not to follow Teale's method. Accordingly the procedure as originally suggested by Stellwag was adopted, and a flap transplanted from the interior of the upper lip. One little device was resorted to, which seems almost necessary when applying a single flap in a position where there are two opposing raw surfaces with a sulcus between, and it is this: When the flap has been united all round by sutures, another suture is passed through its centre at two separate points. These are brought out about 1c.m. below the lower lid and tied over a piece of tubing, the object being to keep the flap closely approximated to the fornix until it unites. This suture was removed on the second day, and the others on the fourth day. The flap has united well, and the movements of the eyeball are now nearly perfect.

Case No. 3—Entropion, with Trichiasis and Advanced Atrophy, treated by Van Millinger's Method.

E. L., aged 58, has suffered with her eyes for 35 years and has been operated on several times, but without getting any relief. Her condition, when seen a little more than two years ago, was as follows: Very marked incurvation of both upper lids, and hairs rubbing against the cornea from all four lids. The lids had reached the final stage of atrophic change; were deeply scarred and very rigid. Both corneæ were nebulous and vascular, the curvature of the right being somewhat increased. She was suffering intensely from the constant irritation of the ingrowing hairs and the pressure of the tight and unyielding lids upon the hyper-sensitive globes, and she was so nearly blind that she could scarcely see her way. A transplantation of flaps from the lips was done according to Van Millinger's method on all four lids with the most satisfactory results. Her eyes have been quite comfortable since the operation, she has no irritation whatever, and her vision has improved so much that she can sew and read J. 12.

The case is shown, not only on account of the satisfactory result of the operation, but also to emphasize the fact that in these very extreme cases of atrophic changes in the lids, this procedure affords the best chances of giving complete and permanent relief, inasmuch as it fulfils all the indications necessary to obtain this object, which cannot, as far as I know, be said of any one of the other recognized methods of operating now in vogue.

Minutes of last meeting were read and confirmed.

Bacteriological demonstration by Dr. Borthwick.

The **President** reported re reprints of transactions, and the Treasurer gave financial statement, which was to the effect that it would be necessary to increase the annual subscription if the reprints were to be continued.

Dr. J. C. Verco proposed "That the action of the Council in discontinuing the reprints of transactions be endorsed." Dr. Todd seconded. Carried.

Ballot for Dr. Walker, of Port Pirie. Carried.

Papers were then read by Drs. R. Stewart, J. C. Verco, Hayward, and T. K. Hamilton.

Dr. Verco's paper was discussed by Drs. Verco, Lendon, Bickle, and the President, and the discussion on the other papers was postponed to next meeting.

HEPATIC HYDATID—RUPTURED BY ACCIDENT INTO THE PERITONEUM—REMOVED BY INCISIONS INTO THE ABDOMEN AND LUNG—RECOVERY.

By Jos. C. Verco, M.D. Lond., F.R.C.S. Eng.

◆

W.B., male, 24, farmer, living at Mount Templeton, consulted me first on February 11, 1892, for a pain in the abdomen on the left side and high up, passing all round the front under the ribs. A horse either kicked him or backed into him and hurt his right thigh on the outer side, and made it stiff and painful for some days. The next day came the pain in the abdomen, which gradually got much worse for some days, then better, and now worse again. He was not confined to his bed, but lay about the house, and occasionally moved about the farm. It is present all day; is worse if he lies down long, and so is always worse in the morning. He has had no vomiting; his bowels have been moved three or four times daily since the accident, though they were not loose before; no melæna. His appetite has been bad, with distension and rifting after food. He has lost flesh somewhat.

He had no knowledge of any discomfort or enlargement of any kind prior to the accident. The abdomen was found to be full, and its appearance suggestive of ascites; he was very sallow, but there was no jaundice. The heart's apex beat was in the fourth space, half an inch inside the nipple; cardiac sounds pure. Chest normal but for dulness, which on the right side began at the nipple and passed horizontally outwards to the scapular angle, and then fell gradually to the spine. Inwards from the nipple it fell rapidly to the costal margin in the parasternal line. On the left side it coincided with the sixth cartilage and rib to the nipple line, and then ran vertically downwards to an inch below the costal margin. Along the rib, up and out to the centre of the left lateral region, then horizontally out to the post-axillary line, and fell rapidly in the left posterior chest. In the abdomen there was dulness in the left hypochondrium, extending down and in to the navel, through all the left umbilical and lumbar region and flank, and in the left iliac and hypogastric areas. There was a little resonance just above Poupart's ligament on the left side, and a kind of resonance in the right iliac region, and over the right side of the abdomen up to the ribs. There was no definite alteration of percussion resonance by position. There was a marked fluctuation wave in the abdomen.

I confess the physical signs puzzled me, and I could get no further than an ascites with some unusual displacement of the bowels to the right. His temperature was generally normal morning and evening; once it rose to 101 at night.

On February 23, at the private hospital in Wakefield-street, I aspirated the abdomen midway between the navel and pubes, and drew off nine and a quarter pints of fluid, greenish yellow, becoming greener on exposure; alkaline; 1022; nearly solid with albumen on heating. After emptying, the abdomen was resonant all over, and on sitting up the left chest was resonant in the lateral region, but the dulness in the right chest remained the same. Two days afterwards the hepatic dulness was at the fifth rib in the nipple line, sixth rib in mid-axillary line, and three fingers' breadth from the bottom of the chest in scapular line. He remained in hospital a week; his temperature was normal; he ate and slept well, and no signs of ascites could be detected.

But eight days afterwards he had nausea without vomiting, following slight pain in right hypochondrium, and began to feel tight; so on March 11 he returned to the hospital and Dr. Lendon saw him in consultation, and I tapped him again on the 24th and drew off sixteen pints of fluid of the same character. But on examining this microscopically I found a single hydatid hooklet. After the previous tapping I had diagnozed a rupture of the liver at the time of the accident, and a secondary ascites with admixture of blood and bile, but the hooklet further suggested the rupture of a hepatic hydatid into the peritoneum. His temperature ranged up to 102·4 at night, and he had a good deal of abdominal pain, and he was so collapsed that for three or four days it seemed as though he would die.

On March 28, as he had revived somewhat, Dr. Lendon gave ether and Dr. W. A. Verco assisted me. The abdomen was opened in the middle line for about two and a half inches, and a large cavity was found, including the whole pelvis, extending through the right iliac region and upwards for about five inches; through the left iliac and lumbar regions, and into the left umbilical region, and up into the left hypochondriac region as far as could be reached with a long pair of forceps. It contained fluid like that withdrawn at the last tapping, with large numbers of daughter cysts of various sizes up to a cricket ball, mostly ruptured and stained yellow. A few were unbroken and filled with slightly turbid fluid. One as large as a pigeon's egg, with a hole which would admit a finger, was nearly filled with a soft, black, solid clot of blood. There was no free blood in the abdominal cavity. Many cysts were removed by forceps from somewhere up by the left hypochondrium. The intestines and stomach were shut off in the upper and right part of the abdomen, but the wall of separation seemed to be rather thin and composed only of inflammatory lymph. The cysts were all removed and the cavity washed out till the water returned clear; a large and a small drainage tube were inserted in the cavity above and to the left, and two more in the pelvis, and the upper part of the wound sewn up with two sutures of silk.

He went on very satisfactorily, a few small skins were washed out, and his temperature was usually normal, with a slight occasional rise; and he gained flesh and strength until April 24, when he complained of pain and tenderness in the right hypochondrium. A fulness was found, flat and circular, reaching inwards nearly to the middle line, and down nearly to the navel, and outwards into the right lumbar region, with slightly impaired resonance over it. This fulness gradually increased, and the temperature remained above the normal.

On May 2 his abdomen was opened in the right hypochondrium by a vertical incision, and a large quantity of bile-stained cysts removed, mixed with pus. The cavity was traced upwards some distance and terminated in a round hole of about the diameter of the thumb, beyond which exploration with a probe revealed a cavity supposed to be in the substance of the liver. Drainage tubes were inserted.

On May 11 he began to complain of some pain in the chest over the liver and above it. No pleural rub or sign of pneumonia could be detected. Several small cysts came away at times, and pieces of larger ones; and more than once the discharge was rather fœtid. His temperature did not fall to the normal.

On June 3 he was troubled with a coughing fit all the afternoon, and from this time onward, when lotion was injected through the tube in the hypochondrium into the small cavity above, it excited a fit of coughing, with frothy, mucopurulent expectoration, some of which was distictly bile-stained.

His temperature was of the hectic type, rising often to 103 at night, and he gradually lost ground. The discharge from the wound varied; sometimes there was almost none, at others a good deal. A long probe passed by a narrow, rather sinuous tract in a direction towards the centre of the upper surface of the liver. Twice I aspirated the chest in the dull area for pus, but could not strike it.

On July 1 the note reads: "The line of dulness runs along the fourth rib outwards and upwards to the right mid-axillary line, then horizontally round the back about an inch above the angle of the scapula, also along the fourth rib inwards to an inch inside the nipple, and then rapidly downwards to the scrobiculus cordis. In the dull area are weak breath sounds and altered weakened vocal resonance."

On July 17 he was again put under ether, and pus was struck in the right lateral chest, so part of a rib was excised, and the suppurating cavity was opened. It was not very large, and seemed to be in the lung substance. It contained some broken-down hydatid cysts. No aperture of communication could be detected between it and the sinus leading to the hypochondrium. It was washed out and drained. The temperature after this operation did not again rise above the normal. The discharge from the right hypochondrium rapidly ceased and the wound closed.

He left the hospital on August 17 with a small sinus in the hypogastrium, and wearing a drainage tube in his chest, and went to his home in the country.

On October 17 he called on me again. I removed the tube from the chest. There was then a narrow sinus three inches long in the hypogastrium.

On July 24, 1893, he writes: "All my wounds are quite healed, and have been for some months. I have a splendid appetite, and sleep well at night. I am able to do the same work as any other man on the farm, and do not feel any the worse after a day's work. My present weight is 9st. 13lb., which is as heavy as ever I have been in my life, with the exception of two pounds."

The train of events in this case was probably as follow:—He had a hepatic hydatid in the upper part of the right lobe, which gave him no inconvenience. By the accident with the horse, the cyst, which was large, was ruptured, as well as the adjacent part of the liver; and many of the contained daughter cysts with bile and blood were discharged into the peritoneal cavity, and excited an inflammatory ascites, which collected chiefly at the left side and the lower part. Some of the cysts, however, remained *in situ*, and set up suppuration in their vicinity, and burrowed downwards into the abdomen in the right hypochondrium, and were removed by the second operation. But in the meantime extension had also taken place through the upper surface of the liver and diaphragm and lung, and ulceration had occurred into a bronchus, so as to allow passage of lotion from the hypochondrium into it, and excite the coughing. This was the cavity opened at the third operation.

The case illustrates the difficulty of diagnosis in hydatid disease. During the ascitic stage it was utterly impossible until the microscope revealed the single hooklet, for there was not the slightest hint of the previous existence of a hydatid. The frequency with which the parasite grows to a large size without giving the faintest subjective evidence of its presence must always introduce an element of difficulty into the diagnosis when from any cause it has burst. If there were any knowledge of an antecedent swelling, one might make a shrewd guess at the state of affairs; but where there is nothing of the kind, the explanation by a possible hydatid is gratuitous and seems far-fetched, though in South Australia it would often be correct.

It demonstrates, too, the tolerance of the system in the young and vigorous of injuries and diseases to tissues, cavities and viscera of apparently the most dangerous kind; and suggests the necessity and the value of following up, as far and as fast as we can (even though this, looked at from the end of the case, may seem extremely slowly), each successive indication for attack, in the hope—by no means infrequently realized—that the entire parasite, or rather its ultimate remains, will finally be removed from the body, and the patient be completely and permanently cured. In an encounter with a hydatid, or with a host of hydatids, the contest should never be abandoned. We should fight to the last under the flag of "*Nil Desperandum.*"

TWO CASES OF FACIAL CARBUNCLE.

By W. T. Hayward, L.R.C.P.I., Hon. Physician Adelaide Hospital.

Members will remember that last year Dr. Verco read an interesting paper on "Two Cases of Facial Carbuncle," at a meeting of this Association. Since that time two cases of that disease have occurred in my practice, the notes of which I propose to bring under your notice. The first is of so trivial a character that it would not be worth recording were it not taken in connection with the second, which, unfortunately, terminated fatally.

J. V., *æt.* 35, wood-seller. A very phlegmatic individual, who, with the exception of suffering from a whitlow, an ulcerated leg, and some boils fifteen years ago, had always enjoyed good health. On August 21, 1892, he felt unwell, his head ached, and he was chilly. He noticed that his upper lip was slightly swollen. The febrile symptoms increased in severity and the lip became painful and more swollen.

On August 26, when I first saw the patient, he was complaining of feeling "ill all over," of great pain in the upper lip. On examination I found a hard, brawny swelling extending from the mid line of the upper lip to a line from the left ala nasi to the angle of the mouth, and involving the whole thickness of the lip; there was also a general swelling of the left cheek reaching to the orbit. A little sero-purulent fluid exuded from a small opening at the lower part of the carbuncular swelling, and there were one or two spots on the surface showing signs of breaking down. Temperature 101. No other abnormal conditions. Urine contained neither albumen nor sugar.

August 27.—Slept badly; pain very severe; general symptoms as before; temperature 101·2. Enlarged the opening in lip. Ordered soda salicyl. and t. cinchon co.

August 28.—Pieces of "core" coming away from opening since incision. Swelling in face decreasing, but still very brawny about the ala nasi.

From this time all the symptoms began to subside, and for the next six days pieces of core came away from the lower opening, which closed shortly afterwards. On September 5 the patient felt quite well, only a slight thickening of lip remaining.

Miss N., aged 25, assistant. A strong, healthy, attractive looking girl, who, prior to this illness, had always enjoyed the best of health. Family history good. About ten days before present illness commenced she suffered from "nasal catarrh," which lasted for about a week.

On December 15, 1892, she had some shivering, accompanied with a severe headache, and she noticed that her upper lip was swollen. This swelling increased and became extremely tender. She consulted a medical man, who advised linseed meal poultices.

Patient was first seen by me on December 22. Her condition then was as follows: Face flushed, left side swollen; left eye partly closed, swelling not tender to the touch; a localized hard swelling over centre of upper lip, extending rather more to left side than right; whole thickness of lip implicated; subjacent mucous membrane whole. Swelling itself is hard and red, with small yellowish spots on its surface, very tender to touch. Just below level of, and external to, left ala nasi there is a swelling about the size of a large pea, having an appearance similar to that just described. Complains of severe headache; is sleepless and inclined to be delirious; breath offensive; tongue thickly coated; anorexia; bowels rather constipated; heart and lungs normal; no albumen nor sugar in urine; temperature 103; pulse 130. Ordered lead of opium lotion, mixture of salicylate of soda and liq. morphiæ.

December 23.—Easier; slept better; temperature 102. Sloughs appearing through small apertures in swelling, a granulation which bleeds easily.

December 24.—Temperature 103·4; pulse 100. Lip more swollen, general swelling of left side of face also extended.

December 25.—Slept badly; temperature 101; pulse 96. Carbuncular swelling reaches to left angle of mouth; it is marked with small yellow spots, and is not painful. There is some redness and tenderness at the back of left ear. The superficial lymphatics and glands of the upper half of neck are hard, swollen, and tender.

December 26.—Very low; temperature 101·2; pulse 88. Left eyelids swollen and closed. Chemosis. Lymphatic swelling extending downwards; sloughs in carbuncle breaking down. A purplish hard line runs from left angle of mouth to midway between the symphisis and left angle of lower jaw. Stopped salicylate mixture and ordered quin. sulph. gr.ii, liq. morph. a. c. ♏x. every four hours; brandy, 4 oz.

December 27.—Temperature 103; swelling of face subsiding; carbuncle looking better; right eyelid slightly swollen; slight rigor last night.

December 30.—Temperature 100·2; pulse 78. Sleeps badly; pain generally subsiding, also œdema; can open left eye slightly. Carbuncle much softer, discharging pus from several openings.

December 31.—Temperature 101; pulse 88. Two small abscesses in neck and one under left lower eyelid incised; considerable amount of pus discharged. Ordered sulph. carbol. of soda mixture.

January 1, 1893.—Temperature 101·2; pulse 88. An abscess, situated between angle of mouth and lower jaw, incised. Other abscesses still discharging. Cannot sleep at night. Chloral draught.

January 3.—Temperature 101; pulse 120. Very prostrate. Vomited once or twice during night after a slight cough. Hiccough present; tongue rather dry; eyeballs appear to be protruding. Ordered effervescing mixture ammon. carb. and creosote.

January 4.—Picked up yesterday afternoon—had one or two short sleeps. Complains of head feeling dull and stupid and of pain behind the ears. Has vomited twice this morning a greenish-looking fluid. No shivering nor sweating. Hiccough has occurred at times. Lip has almost healed, swelling nearly gone; abscesses discharging very slightly; eyeballs still protuberant; no pain in eyes, but right one chemosed; tongue moist and less furred; bowels open. Very prostrate. Has wasted greatly. Temperature 101·2; pulse 108.

January 5.—Slept fairly well. Head aches, but not severely. Eyes very protuberant; pupils rather dilated, but react to light; is losing her sight; cannot see how many fingers are held up. Lip quite healed, also abscesses. Temperature 101·6; pulse 96. Tongue moist and cleaner. Has taken her food better. Bowels open. No vomiting nor hiccough since yesterday.

January 6.—Slightly delirious. Sight more defective; eyeballs equally protuberant; lids cannot close on them; not painful nor tender to touch. Considerable œdema from back of left ear to nape of neck, also in right submaxillary region. Temperature 103; pulse 108.

Evening.—Dr. T. K. Hamilton saw patient and found that movement of the eyes was greatly restricted; retinal vein engorged; no papillitis.

January 7.—Better night. Perfectly conscious; can distinguish light from darkness. Temperature 102·1; pulse 108, regular. Swelling of face and neck subsiding.

January 8.—Proptosis of right eye not so marked; swelling of right eyelids more so. Ulcer on left cornea.

January 9.—Can see fairly distinctly with right eye, swelling having greatly decreased. Fluctuating swelling above inner canthus of right eye, from which on incision about half an ounce of pus was evacuated. Temperature 101; pulse 108.

January 11.—Sleeps fairly. Can see distinctly with right eye, slightly with left; proptosis markedly decreased. Complains of great pain and heaviness in back of head. Œdema of back of scalp from ear to ear, extending downwards to nape of neck. Hard cord running from angle of jaw to clavicle on right side, blocking of external jugular vein. Temperature 101·8; pulse 108.

January 14.—Œdema considerably increased; includes right eyelids, right half of forehead. Fluctuation detected behind left ear, incised, venous blood only escaping.

January 17.—Œdema has gradually decreased; all the wounds have healed. Patient able to open and shut both eyes; can tell the time by clock on mantlepiece. Temperature has ranged from 99 to 100; pulse 120 to 130. Is frequently light-headed during the night, but sleeps fairly well.

January 18.—Discharge of pus from right ear. Left parotid gland swelling. Temperature 99·8; pulse 104.

January 20.—Parotid gland incised and pus evacuated. Cough with tough expectoration.

January 24.—Looks much better. Swelling of face entirely subsided. No proptosis. Slight internal strabismus of left eye. Discharge from ear much less, but fair quantity from parotid. Complains of slight pain in shoulder joint; no swelling or loss of movement in it. Cough very troublesome; thick tenacious expectoration. No pulmonary signs. Temperature 102; pulse 120.

January 27.—Deep fluctuation detected midway between left ear and occiput. Incised, some thick pus evacuated; bleeding rather profuse.

January 30.—Seems easier. Pulse 160, irregular and very feeble. Stopped sulpho.-carbolate mixture. Ordered Spt. Amm. Ar. Spt. Æther t. digit. Temperature 102.

January 31.—Sweated profusely yesterday and was almost collapsed. Had a better night. Temperature 98·4; pulse 120.

February 1.—Very prostrate. Cough troublesome. Some moist sounds heard over base of right lung. Temperature 101; pulse 144. Urine acid, specific gravity 1010; slight trace of albumen.

February 5.—Is better. Asks for something to eat. Cough very slight. Physical signs cleared up. Temperature 98·2; pulse 108.

February 17.—Patient has remained in much the same condition since last note, the temperature rising at times to 101, pulse 120, without any apparent cause. There is a slight feeling of fulness between the right crest of ilium and costal margin; rather tender on pressure.

February 25.—Painfully thin. Temperature 100·5; pulse 128. Distinct tumor in right umbilical region, which can be grasped between loin and abdominal wall; not fluctuant and only slightly tender. Urine decidedly albuminous, with fœtid odour; bowels constipated.

March 22.—Since last note patient has remained in very much the same condition. The "tumor" disappeared suddenly, a large motion having been passed the day before; is very emaciated; suffers no pain; speaks cheerfully, and seems to have no fear as to result of her illness; sleeps fairly well, and has a good appetite; craves generally for indigestible things, such as pickled onions; has had diarrhœa for past two days; had two attacks of shivering the day before yesterday; temperature 100·2; pulse 126; lungs and heart normal; liver extends from fifth rib to one inch below costal margin in nipple line; not tender on pressure; no other physical signs.

April 18.—Still very weak and emaciated; temperature has ranged from 98 to 100·2; pulse about 120; has chemosis of left eye; about half-an-ounce of pus evacuated from lower lid; appetite keeps good; tongue clean; some lodgment of fæces in rectum.

May 12.—Has latterly suffered from slight diarrhœa, the motions running away; tongue clear; appetite poor; temperature 100·4; pulse 124; no improvement in strength.

May 29.—Patient died this morning. With exception of an abscess in abdominal wall, no fresh symptom supervened. She gradually wasted away, and died from sheer exhaustion. Her illness lasted five months and a-half.

Remarks.—I have related this second case somewhat fully, as I think the progress of its course is interesting. It presents some points of more than usual interest, one of which will be dealt with fully by Dr. T. K. Hamilton. The two cases may be very simply classified—the first as one of facial carbuncle without blood poisoning; the second as one followed by blood poisoning in a very virulent form. There was no history of any previous wound to the lip in either case. The initial symptoms and the appearance of the carbuncles were very similar when they first came under my notice, and there was nothing to lead me to think that in the one case recovery would be complete in a fortnight, and in the other that death would take place after a protracted and terrible illness.

Dr. Verco remarked, when reading the paper before alluded to: "I record these cases with satisfaction for this reason—that they tend to lift a cloud of anxiety from the mind of a medical man. It is no pleasant prospect to enter the lists with a disease which has gained the victory

14 times out of 15 in spite of the efforts of a Paget. It is some sort of relief to know that it is not always so irresistible."

I regret that I cannot adopt a similar tone in bringing my cases before you, but I think I can be of some service in drawing your attention to the undoubted dangers that are ever present in such cases, and quoting a "horrid example."

My chief reason for bringing them under your notice this evening is to initiate a discussion on the treatment of such cases. I confess I am very dissatisfied with the course I adopted, but yet I know of no authority who has urged the necessity of radical surgical treatment. I feel that there ought to be some recognized line of treatment that may be adopted with a view *to prevent* the possibility of the occurrence of blood poisoning. We know that though, as in my first case, a carbuncle of the lip may follow an ordinary course, and be only a trivial affair, yet, we also know, on the authority of Sir James Paget, that, in a majority of cases the reverse may be the case. Are we warranted under these circumstances in treating such a case when it first comes under our notice in the hope that it may come under the first category; or should we, or ought we, to adopt treatment with a view to prevent it coming under the second? This is a most important question, and necessitates the formulation of some authoritative principle of general treatment. Cases of the kind are comparatively rare, and the time for action is very short. There is no room for expectant treatment. I have thought a good deal on this question, and have come to the conclusion that in all such cases, no matter how trivial they may appear at first, measures should be taken to prevent, if possible, the absorption of the poison into the general circulation; and that the best means for this end is to freely incise the affected part, scrape away the diseased tissues, and apply some strong escharotic, such as chloride of zinc or pure carbolic acid. This procedure would necessarily be very severe, and would cause considerable disfigurement, and the surgeon adopting it would have to be prepared to take the consequences of his heroic treatment. Unfortunately, the patient or her friends can hardly be expected to grasp the situation, the disease appears so trivial. In the notes of my second case I purposely mentioned that the patient was a "young and attractive-looking girl." I can easily imagine that had I adopted the treatment I suggest when I first saw her, especially as her first medical attendant had made light of the complaint, and she had recovered and found her good looks gone, that her feelings towards me would have been the reverse of amiable; and I should not have been surprised at receiving a letter from a member of another profession suggesting damages or a law suit; or if my efforts had still been unsuccessful, that the friends might have instituted proceedings, and, in the light of recent events, such a contingency must not be overlooked. For this reason alone I think the subject should be debated by our Association. I would therefore ask members who have had cases of facial carbuncle to give us the benefit of their experience, and members generally to express their views on the subject of treatment.

ORBITAL CELLULITIS.

By T. K. Hamilton, M.D. Univ. Dub., F.R.C.S.I.

Two cases only of orbital cellulitis have come under my observation—one of them a case of Dr. Corbin's, in which the cellulitis was caused by erysipelas of the face; and the other, the case of Dr. Hayward's, you have just heard read, in which facial carbuncle was the starting point of the trouble.

Case I.

J. M., a cabdriver, came to Dr. Corbin on 15th July, 1890, with erysipelas of the face. He had a sore inside one nostril, which he had picked and probably infected with some septic matter, thereby giving rise to the erysipelas. He complained at first of severe pain in the nose during a very cold night drive, and gradually developed signs of inflammation of one orbit first and soon afterwards of the other. The usual symptoms presented themselves—proptosis, chemosis, restriction of the eye movements, and more or less amblyopia, but comparative freedom from pain. Despite all treatment, including free incision and evacuation of pus on one side and enucleation of the globe on the other; after the cornea of this latter had sloughed from exposure, and after the clearing out of a retro-ocular purulent collection on this same side; I say, despite all this and carefully-regulated constitutional treatment, carried out all along by Dr. Corbin and myself, things went on from bad to worse. The patient became delirious and soon afterwards comatose. In this condition he remained for two or three weeks, and then, contrary to expectation, he regained consciousness for a few days, but soon relapsed again into his former unconscious state, became gradually weaker, and died at the end of the second month of his illness, reduced to a mere skeleton. A *post-mortem* examination was asked for, but refused.

Case II.

Dr. Hayward has entered so fully and minutely into the details of this case that I need not do more than very briefly refer to a few of the more important symptoms connected with the orbital complication.

The redness and tenderness over the left mastoid, observed as one of the earliest symptoms, might seem at first sight to have little or no connection with the eyes; but we shall see presently that swelling behind the ears is of the greatest diagnostic importance and interest in all these cases. Observe that the orbital trouble commenced, not in the two eyes simultaneously, but on the left side first and next day on the right, and on the fifth day after the onset of the inflammation pus was found under the cutaneous surface of the eyelids. In the course of another few days, when the exophthalmos, immobility of the eyeballs, and the chemosis have reached their maximum, mydriasis, amblyopia, and engorgement of the intra-ocular veins are observed, and coincident with these conditions there is some delirium. From this date the pressure symptoms seem to have abated, and the vision to have gradually improved. A few days subsequently. œdema of both mastoid regions is noted, also evidence of thrombosis of a superficial vein; and lastly, at the end of the last week, purulent otitis media commences on one side.

The records of these two cases furnish a typical clinical picture of the so-called idiopathic orbital cellulitis. Both cases originated from a similar cause, viz., the introduction of a specific poison peripherally into the system. They were both complicated with the most serious of all complications which occur in orbital inflammation—thrombosis of the cavernous sinus. They ran pretty much the same course, though the cerebral symptoms predominated in Case I, and both patients probably succumbed to general septicæmia. When erysipelas is the cause the case is usually a very severe one, and very frequently fatal.

Here an interesting question meets us: How does the poison reach the orbital tissues? Is it by metastasis, or is it by spreading along the cutaneous surface? Leber says that "the origin of the orbital inflammation is to be regarded in the same light as probably everyone now looks upon the occurrence of an apparently spontaneous attack of erysipelas, viz., that infectious matter finds its way into an unnoticed abrasion." Against this opinion and in favour of the metastatic theory may be quoted the conclusions of Gillet de Grandmont, as contained in his paper on "The Microbic Nature of Deep Ophthalmias." In it he records some interesting observations, which prove that, at least in some cases, the eye becomes secondarily infected with microbes which reach it through the circulation. All the authorities who mention facial carbuncle as a cause of orbital cellulitis, put it in the metastasis group along with typhus, puerperal fever, pyæmia, &c.

The inflammation having become established in the orbit may, and frequently does, extend to the brain, and thrombosis of the cavernous and other cerebral sinuses occurs. When this takes place it is probably always, as was at first pointed out by Berlin and confirmed by Leber, through the vessels and not through the lymphatic channels. Thrombosis of the cavernous sinus is always a very grave complication, and in markedly pyæmic cases usually fatal. As part of the orbital inflammation the veins become implicated, and the phlebitis extends along the superior and inferior ophthalmic veins into the cavernous sinus. It seldom stops here, but commonly passes on to the sinus on the opposite side and to the other sinuses. The effect of the cavernous sinus of the opposite side being involved is that that eye also becomes prominent. "If during an attack of cellulitis," according to Berlin, "this occurs, and at the same time cerebral symptoms are developed, phlebitis of the cavernous sinus may be diagnosed almost with certainty."* But Dr. Hayward's case furnishes us with yet another aid in determining whether the cerebral sinuses are involved or not. The œdema of the mastoid regions is, according to Fuchs, strong corroborative evidence of the existence of thrombosis of the cavernous sinuses. "Œdema of the mastoid region," he says, "depends upon the fact that in this region an emissary vein of Santorini (the *emissarium mastoideum*) empties into the transverse sinus, and thus indirectly into the cavernous sinus, so that when there is occlusion of the latter this region also shares in the venous stasis. When this œdema is present it forms an important diagnostic sign between thrombosis of the sinus and orbital cellulitis, in which latter it is absent. Finally, thrombosis of the sinus is associated with very severe cerebral symptoms, interrupted at last by the onset of the fatal issue."†

Thrombosis of the cavernous is, as I have said, often associated with thrombosis of the other cerebral sinuses, *e.g.*, it most frequently originates in a caries of the petrous bone, the thrombosis extending from the sinus of the latter (the petrosal sinus) to the cavernous sinus. In this connection probably lies the explanation of the purulent otitis media, which appeared later on in Dr. Hayward's case. One word in conclusion as to the termination of the two cases. In both cases there was, as we have seen, a septic origin; in both, cerebral thrombosis occurred as secondary to the orbital, but only in Case I did the cerebral symptoms become pronounced, and remain unabated to the end. Whether this was due to the difference in kind and in intensity of the poison, or to the constitutional tendency of the patient, or what, it is difficult to say. In the one case probably a purulent meningitis succeeded the thrombosis, and the disease spent its energy on the brain and its membranes, whilst in the other the septicæmia became general and manifested itself in various parts of the body. The way in which Dr. Hayward's patient rallied out of the serious condition she was in when the cerebral thrombosis commenced is remarkable. I confess to having expressed the opinion, when I saw the case in consultation, that the delirium would probably be succeeded by coma, and that the vision would not likely return; but the case took a very different turn from this, and so much did the patient improve that Dr. Hayward had, I believe, at one time very good hopes of her ultimate recovery.

---

* *Graefe-Saemisch's Handb.*, v. xi, p. 839.

† *Text book of Ophthalmology*, p. 585.

A CASE OF HYDATID OF THE LIVER SIMULATING GALL STONE COLIC.

By Dr. R. Stewart.

MRS. C., aged 38, on Good Friday of 1890 had her first attack of severe pain in the region of the gall bladder. She had many paroxysms of pain for 24 hours. The attack was followed by jaundice. Six months afterwards she had a similar attack, also followed by jaundice. At this time some enlargement of the liver in the epigastric region was apparent. She then remained free from what seemed to be undoubtedly attacks of gall stone colic until July, 1892, her jaundice having gradually cleared up after each of the attacks mentioned.

Early in 1892 she became pregnant, and for the first six months of her pregnancy enjoyed good health; but in July she was again seized with what I took to be an attack of gall stone colic, followed by jaundice; and before the jaundice had time to clear up other paroxysms came on, and during the last three months of her pregnancy she had, on an average, at least once a week an attack of these paroxysms of pain in the region of the gall bladder, and during the whole of that time complained of a good deal of pain in the epigastric region. During these last three months she was always much jaundiced.

On 29th October her baby was born at full time. After this, on physical examination, the enlargement of the liver in the epigastric region was distinct, and there was also some enlargement downwards of the right lobe of the liver. The distended gall bladder was some days easily distinguishable, but it varied much in size on different days. One day it was apparently as large as an emu egg.

On 9th November Dr. Verco saw her with me, as she still continued to have this recurring colic, and he agreed that she was undoubtedly suffering from gall stone colic, and that she probably had in addition either hydatid of the liver or malignant disease. She was now intensely jaundiced.

On 19th November, with the assistance of Dr. J. C. Verco, Dr. Evans administering ether, I opened the abdomen over the then only slightly distended gall bladder. On exploring, we discovered to the left of the gall bladder, on the under surface of the right lobe of the liver, a hard rounded swelling about the size of a hen's egg. This was adherent to the wall of the gall bladder, and about half of it projected away from the liver, the other half being imbedded in the liver tissue; there were no other nodules. On exploring with the finger the left lobe of the liver could be made out uniformly enlarged, and there was also some enlargement downwards in the right hypochrondriac region. After a careful examination we came to the conclusion that this hard, rounded swelling was a hard carcinoma. To ease her recurring biliary colic we decided to go on with our operation of cholecystotomy, but we found no gall stones; and having stitched the gall bladder to the parietes, we were just about to complete the dressing, when, on irrigation, a small collapsed bile-stained daughter cyst was washed out, and on further irrigation others escaped. I should have mentioned that the gall bladder on being opened was found to contain a foul-smelling, semi-purulent fluid. Our hard carcinoma now changed into a hydatid cyst undergoing calcareous degeneration, and having a communicating opening with the gall bladder; at least that was my opinion of the condition, and I believe Dr. Verco's also, the calcareous cyst being possibly larger than we deemed it from exploration.

As these daughter cysts continued to escape freely and the discharge was very foul-smelling, on 2nd December, again assisted by Dr. J. C. Verco, Dr. Evans anæsthetizing the patient, I cut down on the swelling to the left of the gall bladder, and with considerable difficulty on account of the hardness of the wall, managed to open the cyst and clear out its contents, which consisted only of partially disintegrated daughter cysts, which were quite sweet, but were recognizable as daughter cysts; there was no fluid present; the cavity was about as large as a hen's egg. We could make out no communicating opening with the gall bladder. The calcareous cyst walls were stitched to the abdominal parietes, and later on they came away in two large pieces before the 31st December, when she was discharged from the private hospital in Adelaide. After our second operation there was no further discharge of daughter cysts from the gall bladder. By the middle of January both sinuses were completely healed. She has had no symptoms of gall stone colic since, and on examination this week there was no apparent enlargement of the liver.

The substances causing her recurring attacks of biliary colic were not the usual hard gall stones, but in place of them we had the soft hydatid daughter cysts, and the pain seemed quite as agonizing and excruciating as is that usually accompanying the passage of calculi.

I never at any time myself examined the stools for calculi, but directed the patient's attendant to do so, always with negative results; still, if I had examined her stools it is hardly likely that I should have detected daughter cysts, as they would have been, I believe, completely disintegrated.

I believe, in addition to the hydatid cyst undergoing calcareous degeneration, there was another cyst in the substance of the liver communicating with the hepatic duct, and that its contents finally drained away through our gall bladder opening; as if the calcareous cyst had been the origin of the daughter cysts escaping in that way we would necessarily have found its communicating opening, and its contents would not (considering the foul-smelling character of the discharge from the gall bladder) have been sweet. Another reason for my belief that there was another cyst in the substance of the liver is that the great distension of the gall bladder sometimes present (it at one time having been nearly as large as an emu egg) must, I believe, have been caused by the presence of hydatid fluid, which came down by the hepatic duct, it being blocked by the presence of a daughter cyst in the common duct, overflowed through the cystic duct into the gall bladder. The calcareous cyst was only capable of holding a very small quantity of fluid.

For Sale.—*The A.M. Gazette* from 1886 to 1892 inclusive. Offers received by F.R.G.S., care of the Publisher *A.M.G.*

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

The 109th general meeting of the Branch was held at the Royal Society's Rooms, Sydney, on Friday, 4th August, 1893. Present: Dr. Worrall (President) in the chair, Drs. Clubbe, Wm. Chisholm, Fiaschi, Jas. Dick, West, Angel Money, Crago, Newmarch, Wilkinson, Cohen, Maher, Megginson, Thomas, A. Parker, F. H. Quaife, Grace Robinson, Bennett, Langhorne, Lyon, Jenkins, Lennhoff, Clay and Thring.

The minutes of the previous meeting were read and confirmed.

The following new member was announced by the President:—Dr. A. Murray Will, 147 Elizabeth-street, City.

Dr. Newmarch read notes on a "Case of Cerebral Abscess."

SUPPURATIVE MASTOIDITIS—CEREBRAL ABSCESS—OPERATIONS—RECOVERY.

By Bernard James Newmarch, M.R.C.S. Eng., L.R.C.P. Lond.

◆

Through the courtesy, and with the consent, of Drs. R. Arthur, A. J. Brady and W. Chisholm, I am permitted to bring this case before you. To make the history as complete as possible the account of each operation is given in the words of the operator; to condense it, all matter immaterial has been omitted.

Miss C., aged 25 years, a bright healthy girl, suffered from anæmia when about 18 years of age, and when about 19 years old she noticed she was deaf with the left ear—"not absolutely deaf to all sound, but the ear was obviously deaf as compared with the right." Three years ago she had a purulent discharge, which lasted for about six months. She suffered from no earache and no other trouble up to the time of the present illness.

I first saw the case in consultation with Dr. Arthur on February 22, 1893, about 8 a.m., when I was given the following history:—

"He had first seen the patient on February 20 at 7 p.m. She had been suffering from pain in the left ear since 16th inst.; when seen, temperature 102 F.; pulse 100; tongue coated; severe headache and throbbing pain in left ear; sore throat with dysphagia. On examination, very little tenderness over mastoid region or in external meatus; throat congested, especially on left side; bowels constipated; no history of rigor (though from after-experience the patient now informs me that she had a rigor previous to Dr. Arthur being sent for); third day of catamenia. A diaphoretic mixture was prescribed, a blue pill and saline draught, and a spray of listerene with sodæ bicarb. for the throat; the ear to be irrigated with warm water."

"On February 21, 9 a.m., patient was better; pain gone completely from throat; still complained with severe headache and pain behind left ear; temperature 101 F.; prescribed antipyrin gr.v every two hours, and ice to head. 7 p.m.: Headache was worse; pain behind ear intensified by application of ice, which was discontinued; temperature 104 F.; ordered phenacetin gr.v every two or three hours."

When I saw her she was lying in bed, complained of headache, seemed slightly confused, and was obviously ill; face pale, inclined to be dusky yellow; pupils equal; react to light and accommodation; eye movements perfect; pulse full and regular, 98; temperature, 98·4 F.; tongue furred and coated. On examination, tenderness behind left ear, and slight tenderness and stiffness of neck. Before I could complete my examination she had a violent rigor; her face became very livid; temperature rose to 101 F.; pulse 108. A full dose of calomel (gr.vii) was ordered, and a mixture containing bromide of potassium and hyoscyamus; at 11 a.m. temperature normal; pulse 78.

In the evening Dr. A. J. Brady saw the patient with Dr. Arthur and myself. She then seemed better. I give Dr. Brady's opinion and the result of his examination in his own words:—

"On the evening of February 22 I was called in consultation with Drs. Newmarch and Arthur to examine Miss C., to give an opinion as to the state of her ear, and as to the probability or otherwise of the presence of mastoid abscess, which was suspected from the symptoms. These having been described at the beginning of the paper, I will explain only what I saw when I examined the patient. On syringing the left ear a small quantity of curdy pus was removed. The membrana tympani was much altered in appearance, being thickened and scarred by old inflammatory process. It was perforated in its posterior segment. There was no evident swelling or redness of the posterior wall of the meatus contrary to what is frequently seen in mastoid abscess. The patient complained of pain behind the left ear, radiating up the same side of the head, and there was moderate tenderness on pressure over the mastoid, more marked towards its tip. The tissues covering it were natural in colour, and entirely free from swelling. Mentally the patient was bright and cheerful. Dr. Newmarch examined and found the optic discs normal."

At the consultation which followed it was agreed that there was certainly acute mastoid inflammation; that the rigor and rise of temperature were suspicions of mastoid abscess, and that the symptoms did not point to cerebral abscess having supervened. I advised delay before operating and the application of leeches to the mastoid abscess, and the regular syringing of the ear with tepid water to promote the escape of pus in this direction. I was guided in this course by the fact that the temperature had gone down, and that the patient was apparently much better this evening, as well as by the reason that it is difficult to carry out an operation on the mastoid at night with the imperfect provision for light in a private house. It was agreed that if the symptoms did not quickly subside under antiphogistic treatment we were to meet again prepared to operate.

February 23.—There was no change for the better. Temperature ranged between 99·5 and 100·4 F.; pulse 80 to 84. Bowels had acted well four times. She had severe rigors at 5 a.m. and 5 p.m. (the temperatures were not taken during the rigors).

February 24.—No relief from headache; temperature still had a constant range between 100 and 100·4 F. She had occasional shivering, and another marked rigor at midday. I summoned Dr. Brady, and at 4 p.m. the following operation was performed by him, the account of which is given, as before stated, in his own words.

"Dr. Arthur gave chloroform. Dr. Newmarch assisting me, I proceeded to operate on the mastoid. A portion of the scalp was shaved. I made the usual vertical incision immediately behind the auricle; the bleeding was stopped with pressure forceps; when the periosteum was stripped from the bone the latter had a hyperæmic appearance. The soft parts being held apart with retractors, I proceeded to open the mastoid cells with a gouge and mallet; the tenderness being greatest towards the tip of the mastoid, the cells seemed a probable situation for the pus. When these were opened a few drops of pus appeared. Not considering this sufficient, I extended the incision of the soft parts upwards and proceeded to open the mastoid antrum; the perforation in the bone was made at such a level that the upper third of it was above a horizontal line drawn backwards from the upper margin of the external auditory meatus. I used a gouge and mallet to remove the external denser layers of bone, working from behind forwards towards the external auditory canal, and for the deeper part of the operation I used a smaller gouge worked by the hand, the cavity in the bone being kept constantly dried out with small swabs of absorbent cotton and examined with a probe. At the depth of about half an inch a bead of pus appeared at the bottom of the funnel-shaped opening in the bone. The deeper part of the opening was then cautiously enlarged, and more fœtid pus welled out. The wound was syringed with weak carbolic lotion. No fluid came through the external meatus. It will be seen that the pus had made no progress towards the surface of the bone, the whole depth of which had to be perforated and the antrum opened before pus flowed. A drainage tube was inserted ; a portion of the external wound brought together, and an absorbent dressing applied. As I left next day for a holiday in Tasmania, my connection with the case now ceased."

February 25.—Passed a better day, but at 4 p.m. another rigor.

February 26.—No improvement. At 6.30 p.m. the temperature rose to 104 F. ; at 9 p.m. she had a violent rigor, the temperature never falling below 103·4 until about 9 a.m. on the following morning.

February 27.—Severe rigor at 6 a.m. She was bright and cheerful when I saw her at 10.30 a.m. ; temperature 99·8 F. The wound had been kept well syringed and was clean ; very slight amount of pus on dressings. There was still tenderness and pain in the region of the wound, and the headache at times was very severe. I could see little or no improvement in the aspect of the case, and after consultation with Dr. Arthur, we decided that still further measures must be taken, and Dr. Chisholm was summoned to attend.

On February 28 he saw the patient at 7 p.m. The patient had passed a restless night and had had another rigor at 9 p.m. The wound looked healthy, but there was little or no discharge of pus ; some tenderness at the side of head, above and below the ear ; severe headache and pain down the neck. Dr. Arthur again gave chloroform, and Dr. Chisholm proceeded to operate as follows :—

"The usual incision had been made behind the auricle, and the mastoid antrum appeared to have been freely opened. As no communication had been established with the middle ear so as to enable the whole area to be freely irrigated by syringing into the wound and driving all retained matter out at the meatus, it was considered advisable to do this as a first step. The soft parts were separated from the posterior bony wall of the meatus and drawn forwards. A probe was then bent at right angles about one-fifth of an inch from its end, and passed along the bony wall until the point could be inserted into the antrum ; and in this position it was securely held. By means of a chisel and mallet a great deal of the posterior bony meatus and outer wall of the antrum was removed, and then with a gouge and sharp spoon a free opening was made into the middle ear. By taking care not to go deeper than the point of the bent probe, injury to the facial nerve was prevented. On now syringing the wound out with perchloide of mercury lotion it was noticed that the patient was evidently swallowing some of it, and that it also escaped freely from the meatus. The lotion certainly was turbid as it came away, but so far we did not consider that we had opened up any fresh focus of suppuration, and that matter was pent up somewhere we felt convinced. We therefore decided to explore the lateral sinus. A horizontal incision was made backwards at right angles to the former one, and the soft parts being pushed off the bone, the outer surface of the mastoid process was freely exposed ; and this was chipped away some half-inch or more behind the previous opening until the membranous wall of the lateral sinus was exposed. About one-third of this was laid bare, and as it appeared healthy, and a small vein which had been divided was seen to pass into it through the bone and to contain fluid blood, nothing further was done. Iodoform emulsion was poured over the wound and boracic fomentations were subsequently applied."

March 1.—I could see no improvement. Patient had a temperature of 105 F. at 4 p.m., another sharp rise at 4 p.m. to 104 F., and a decided rigor at midday. The pain in the head was acute and constant, and she seemed confused. Dr. MacCormick, with Dr. Chisholm, met Dr. Arthur and myself in the evening, and it was decided, if no relief occurred, that the only course to pursue was to extend operative measures and seek for an abscess in the cerebral substance.

March 2.—So far from any improvement I could see that the case was drifting from bad to worse. The headache was intense. She spoke, but the answers to questions were not readily given, and she very evidently preferred to lie quietly and not be bothered. At about 1 p.m. she had another rigor. As the case had, so to speak, passed from the domain of specialism, I decided to operate myself. At 4.30 p.m., with the assistance of Dr. Chisholm, I performed the following operation :—Dr. Arthur again gave chloroform, the patient taking it well—Carefully measuring with a compass, I marked a spot at right angles to the base line 1¼ inch behind the centre of the meatus and 1⅜inch above the base line. A slightly-curved incision to admit the operation of a small ¼ inch exploring trephine, working on the Archimedean screw principle, was made, and slowly and with some difficulty the small disc of bone was removed. An exploring needle attached to a syringe was introduced in a direction downwards, forwards and inwards. It passed in fully one inch and a quarter. About 30 minims of stinking greenish pus was withdrawn. I then enlarged the skin incision, curving upwards, and with a seven-eighths of an inch trephine made an opening immediately opposite to where I judged the pus was contained. The exploring syringe was again introduced, but only about 10♏ of pus was withdrawn. Following the line of the needle, a thin bistoury was passed, and then a drainage tube $\frac{3}{16}$ inch in diameter and 1¼ inch in length was introduced. There was no hæmorrhage to alarm one, and the scalp wound was closed with horsehair sutures, except the portion over the trephine opening, which I cut away; iodoform freely was dusted over the wound, and a dressing of cyanide gauze and cotton wool applied.

March 3.—Passed a quiet night; pain in head greatly relieved. The temperature rose to 105 at 2.30 a.m., and a rigor ensued. When I saw her in the morning the temperature had dropped to 101·4 F. On dressing the wound, a quantity of stinking serous discharge had soaked the dressings, and on syringing the wound a quantity of apparently broken-down brain substance was cleared away, but no true pus could be distinguished. At 11.30 p.m. the temperature again rose to 105·8 F. The patient still answered questions, but seemed hardly conscious.

March 4.—Patient not so well during the night and slightly delirious. At 12 (noon) she appeared to be dying. I felt sure that pus was retained somewhere, and equally sure that the drainage tube had been passed and was then in the abscess I had detected; but I was by no means certain that there might not be a subdural collection. I passed a director in the track of the tube, and again pus in small quantity welled out. I then introduced a pair of sinus forceps and boldly opened the blades, the forceps passed downwards and inwards, and were felt to grate on the bone beneath. At 3 p.m. she fell into a quiet sleep, and seemed free from pain. I tried a tube 1½inch long, made out of a new metal catheter and with the cut end flanged, but it did not answer well, and the india rubber tube was again inserted.

March 5 and 6.—Improved; more discharge than previously noted. I had the wound well syringed with warm boracic lotion, and dressed with gauze as before. Iodoform freely dusted on.

March 7.—Again worse during middle day and evening. The discharge apparently ceased; still great fœtor; tube withdrawn and director inserted; again pus in small quantity; longer tube inserted.

March 8.—Improved, and up to 13th March all seemed to be going on fairly well. She still, however, complained of headache and was restless at night, even getting out of bed. Her pulse became frequent and feeble, at times 130 per minute. On this day, however, she became obviously delirious, and when I saw her in the afternoon she appeared to be dying; she was quite unconscious; lying helpless in bed; with difficulty she could be partly roused, but gave senseless answers to questions and rambled in her speech; the right arm was quite paralyzed. The wound looked healthy; the discharge was still fœtid, but not abundant. Iodoform had been freely used up till now. This time I felt sure that there was no pent-up pus, but I was by no means certain that a septic meningitis was not developing, and that she would quickly die. With all this, however, I was not satisfied, and my thoughts flashed back to two cases I had had of iodoform poisoning, and it occurred to me that iodoform had, or might have, something to do with the condition present, and straightway I ordered it to be discontinued; and whether "*post hoc*," or "*propter hoc*" I will not pretend to say, but from that hour she gradually improved. Warm boracic foments were substituted for dry dressings, and the discharge, never very much in quantity, gradually decreased and the fœtor abated. Every day, gradually and surely, she progressed towards recovery. It was noted on March 11 that she used wrong words when expressing her wants, but little notice was taken, as mixed with her semi-delirious condition it appeared that it was only what many other patients in semi-delirium do. But this loss of word memory became an important feature in the days of her recovery; she had, to use her own expression, "become a child again," and had to be taught. She became an apt scholar, and when told how to spell a word she then remembered it. She has told me that her memory of her illness is almost a total blank; certain marked occurrences she does remember, but happily very little.

Only one little matter remains to be stated. We had a little trouble with a hernia cerebri which occurred; but by careful pressure, with the aid of a threepenny bit, this was overcome.

Some contraction of the meatus remains. Slight purulent discharge remains, but is rapidly improving, and the wound was quite healed on April 30. She is now what she was before, a bright, happy, healthy woman.

Remarks.—The case related has, if I may dare to suggest to those present, many points which may fairly be discussed. First and foremost, in my mind, the diagnosis, next the treatment, and lastly the question of iodoform poisoning. I have so fully filled up my time and exercised your patience that I will do no more than name these points and leave the discussion in your hands.

DR. BRADY said: This case presents an instructive lesson in the necessity of seeking for pus elsewhere should there not be an early relief of symptoms when a mastoid abscess has been evacuated. If one might formulate a rule on the subject, he (Dr. Brady) would say—"Where a mastoid abscess has been opened and the symptoms are unrelieved, or only partially relieved, and any other cause for their persistence, such as pneumonia, &c., can be excluded, intercranial suppuration is probable." It is the duty of the surgeon in such a case to explore the intercranial cavity. In the absence of other guiding signs, he would naturally go first to the most frequent seat of intercranial abscess connected with ear disease, viz., the tempero-sphenoidal lobe. He (Dr. Brady) had seen more than one patient, for whom an abscess in this situation had been successfully evacuated, afterwards succumb. The success of this case he (Dr. Brady) attributed mainly to the promptitude with which Dr. Newmarch acted in opening the cerebral abscess before the suppuration had time to work extensive mischief in the brain substance. In a brain abscess connected with mastoid disease, the opening and drainage of the mastoid is equally necessary with that of the cranial cavity. They could hardly hope for the successful healing of a cerebral abscess if it were still fed from a putrid undrained source below.

The **President** (Dr. Worrall) said that Dr. Newmarch was to be congratulated for his perseverance in this case, as many another practitioner would have given up. This subject was well worthy of discussion owing to the frequency of cases and the large amount of mortality. Three well-known people of Sydney had died from this cause of late.

Dr. Chisholm said that having been associated with Dr. Newmarch in this case he would like to say a few words. As a rule, successful cases speak for themselves; but this case was only overcome by Dr. Newmarch's perseverance, and in the hands of a less persevering man might have had a different ending, especially as the friends of the patient were averse to further interference, and their objections had first of all to be overcome by Dr. Newmarch. At the consultation Barker's method was tried. This is a very short operation, not taking more than ten minutes as a rule. With regard to cases of disease of the middle ear, it is certainly advisable to have small instruments, as there is very little room to work in. He (Dr. Chisholm) had two cases of this kind lately—one kindly sent by Dr. Fiaschi, and the other by Dr. Graham to the Children's Hospital. As to Dr. Newmarch's remarks about the use of iodoform, some think it should be abolished altogether; but he (Dr. Chisholm) thought that in some cases there was no drug like it. In the case under review no doubt some trouble arose from its use. This abscess was, no doubt, subdural. The needle was passed through brain substance and through the dura mater; and if it had been known that pus was there, it would have been removed earlier, and saved the patient, who was very plucky, a great deal of trouble.

Dr. Angel Money remarked that cases of abscess of the brain tended to fall into two main groups. In the one the symptoms were marked from the first; rigors were frequent; high temperatures prevailed, and convulsions, with paralysis and other signs of cerebral disturbance were present, or developed rapidly with increasing severity. To this class of case Dr. Newmarch's evidently belonged. When the symptoms were of this kind the abscess was probably always initiated at the surface or within the grey matter of the brain. In the other group of cases of cerebral abscess the symptoms were few. A latent period existed for days, or even weeks, and the final stage of coma and convulsions appeared rather suddenly, and terminated rapidly in death. In such so-called "chronic abscess" of the brain, rigors were fewer or did not occur, and a subnormal temperature was often noted. The abscess began in the white matter, and often remained wholly intracerebral in position, though meningitis might supervene. It was probable that the two sets of cases owed the differences in their clinical course mainly, if not entirely, to their difference in position. In the so-called acute abscess the grey matter was irritated and destroyed; the pyrogenic material was frequently absorbed; the cavity of the abscess was irregular, and a limiting membrane could hardly be formed. On the other hand, the abscess which began in the white matter was more localized, and increased in size more steadily and uniformly, and it could more easily become encysted.

Dr. Lennhoff said he must congratulate Dr. Newmarch on the successful issue of the case, and for the very interesting paper on it. The case was particularly interesting from the diagnosis and treatment. He (Dr. Lennhoff) had a somewhat similar case lately of a boy of about seven years of age. When he was called in the boy was in convulsions, and on the second day he was partly paralyzed. Another medical gentleman was called in for consultation, and it was found that the trouble was located on the left side of the head, and the general symptoms were like those described by Dr. Newmarch, even to the loss of memory and the calling of articles by their wrong name.

Dr. Thomas said he remembered reading of a case of cerebral abscess in which the temperature was subnormal, with no rigor and no convulsion.

Dr. Jenkins spoke of a case under treatment in Prince Alfred Hospital, where a large abscess had existed for years in a man's frontal lobe, the result of a brick falling on his head. The pus when evacuated had a greenish tinge, and was peculiarly offensive. The temperature was subnormal, and there were no symptoms except severe headache. This bore out Dr. Angel Money's view that chronic intracerebral abscess remained latent for long periods, and was not so liable to produce the irritative symptoms so commonly observed in cortical lesions. From a medical point of view Dr. Newmarch's case was also most interesting, the paralysis of the right arm signifying a temporary disturbance in the left motor arm region, and the well marked sensory aphasia, a similar disturbance in the left superior tempero-sphenoidal convolutions, probably due to the operative interference necessary for the evacuation of the pus. As regarding the use of iodoform, or rather the abuse of a valuable drug, several cases had occurred with symptoms of iodoform poisoning under the late Dr. Fortescue, when large quantities were dusted over raw surfaces.

Dr. Maher said that some years ago he treated a child at St. Vincent's Hospital for a similar disease The patient fell off a balcony, and had some frontal injury; there was some necrosis of the bone. Convulsions set in; but there was no rise in temperature, although there was a very large abscess.

Dr. Fiaschi said that the lesson to be learned from Dr. Newmarch's paper was that in all such cases we must not let the friends interfere, as the first operation may not be the final one. With regard to iodoform poisoning, iodoform should not be used on large raw surfaces, and especially to brain substance, as it is certainly dangerous in such cases; but there are many cases in which it is extremely useful.'

Dr. Crago said he quite agreed with the remarks of Dr. Fiaschi about the use of iodoform. It should certainly not be used on large raw surfaces.

Dr. Worrall said he was glad such an interesting discussion had taken place on this paper. With regard to the use of iodoform, it certainly must not be used too freely, and it must not be used on large raw surfaces.

It is not a germicide, but there is no doubt it prevents the action of germs. It is one of the most valuable antiseptics, and should not be discarded too readily.

Dr. Newmarch, in reply, thanked the members for the discussion, and said that he had seen iodoform used too freely in several cases with bad results. With regard to Dr. Money's remarks about rigors, it was not thought that the case was one of cerebral abscess to start with, but a mastoid abscess. As to Dr. Lennhoff's question about the quantity of pus, it was impossible to say with any certainty; the dressings were saturated every day. It is quite true you could have cerebral abscess with a subnormal temperature. He (Dr. Newmarch) did not know any more difficult position to be placed in than to have to convince the friends of a patient of the need of further operation in a case of this kind. He would like to thank his colleagues for their very valuable and ready assistance.

Dr. Worrall exhibited an uterus and double ovarian cyst, and read the following notes :—

ADENOMATOUS UTERUS AND DOUBLE OVARIAN TUMOUR IN A YOUNG GIRL SUCCESSFULLY REMOVED PER VAGINAM.

By Ralph Worrall, M.D., M.Ch., President New South Wales Branch British Medical Association, Hon. Assistant Gynæcologist to the Sydney Hospital.

The specimens which I show present some features of unusual interest and rarity. They consist of the uterus and both ovaries transformed into multilocular ovarian cysts, which I removed from a young girl, *æt.* 17, per vaginam.

History.—Menstruation began at 12 years old. From the first the flow was rather excessive, and after she was 14 it became also too frequent and increasingly profuse, although occasionally there was amenorrhœa for two months. In June, 1891, she was quite prostrate from the almost constant flow, and was curetted by another surgeon. Improvement followed for a couple of months, but the procedure had to be repeated in September of the same year. After this she remained fairly well until April, 1892, when there was amenorrhœa for six weeks, since which there had been a constant and profuse flow.

She consulted me on July 15, 1892, and although fairly nourished was then quite blanched and inclined to faint; pulse rapid and feeble; lower limbs œdematous; urine, no albumen. Uterus slightly to left; very bulky; fairly movable; not tender. Cervix much enlarged, very soft, and covered with aphthous-looking spots; irregular vascular fringes projected into a patulous cervical canal. Both ovaries were enlarged, especially the right, which was the size of a large duck egg and was prolapsed into Douglas' pouch. Left ovary. not quite so large, was also low.

August 7.—Curetted without any previous dilatation; large quantity of granulation tissue removed.

August 21.—As the flooding had returned for the past few days, I again curetted and tamponed uterine cavity with gauze soaked in ti. iodi. After this, although there was always a profuse muco-purulent discharge, she remained free from any excessive red flow, and became much less anæmic, until December, when flooding of a serious kind again set in, causing acute anæmia.

On December 8 I again curetted, removing a great quantity of the same granulation tissue. I noted that the right ovary was the size of a large orange, and the left about the size of a large duck egg. Dr. Wilkinson and Dr. Rennie were kind enough to make independent examinations of the scrapings, and both reported to the same effect, "that there was evidence of great hypertrophy of the endometrium, but no sign of malignant degeneration; at the same time, in the absence of a section through the uterine wall, it was impossible to absolutely exclude malignant disease."

After this she continued well until March, 1893, when flooding more severe than ever occurred, quickly reducing her to an almost moribund condition. She was perfectly blanched, respirations sighing, and pulse 156, thready. Assisted by Dr. E. Blaxland, of Burwood, I again curetted. The granulation tissue this time was small in quantity, but the endometrium was much harder, rougher, and more uneven. Ovaries about the same as last note, three months previously. Recovery took place much more slowly after this curetting, the patient remaining in a critical condition for several days.

When I was first consulted in July, 1892, and repeatedly afterwards, I strongly urged a radical operation as the only hope of cure; but seeing how well the girl appeared after each curetting, the friends witheld their consent. Thoroughly alarmed, however, by the desperate condition of the girl previous to the last curetting, and spurred by the intimation that I should have nothing more to do with her unless my advice were acted upon, they at length agreed that I should do what I thought best.

On April 8, 1893, assisted by Drs. Jenkins, Goode and Blaxland, I proceeded to remove the uterus by the vaginal method. Owing to the narrow ostium vaginæ, I found it necessary to incise the perinæum as far as the sphincter ani, and even then the space was so small that a retractor had to be used instead of the operating speculum. The bladder was first dissected off, then Douglas' pouch opened, the parametrium ligatured in successive sections, and the organ removed. The right ovary was found enlarged to the size of a cocoanut, and the left to that of a turkey egg. Both were therefore freely incised to allow of their being brought through the vaginal roof. The pedicles were ligatured in the usual way, and then sutured into the angles of the wound, the edges of which were sutured together, except in the centre, where space was left for a gauze drain. The vagina was then tamponed with iodoform gauze and the incised perinæum closed.

Recovery was very easy, and the patient has lately been "walking miles" in the country.

Dr. Wilkinson has kindly made sections of the uterus and ovarian cyst; and I should like those interested to examine, and give the meeting their opinion of the conditions.

Dr. Wilkinson's report says: "The cysts were ordinary multilocular ovarian cysts. Section of uterus shows overgrowth of glandular elements, with hæmorrhages and foci of small celled infiltration; no invasion of deeper layers by epithelial cells of uterine glands."

The points of interest are that the uterus and ovaries should have undergone such profound pathological changes in so young a subject. In connection with this, I may mention that I believe the girl was of an erotic disposition, and no doubt the constant determination of blood to the organs played a not unimportant part in the production of disease.

It is generally recognized that bilateral tumours are clinically and histologically unfavourable; that is, that they are often malignant in character. Fortunately, Dr. Wilkinson's examination shows this case to be an exception to the usual rule.

As regards the mode of operation: I have not been able to find any record of ovarian cysts removed through the vaginal vault with or without the uterus.

To have removed the uterus by the vagina and the cysts through the abdomen would have necessitated delay in altering the position of the patient, and increased the risks of shock. It may be contended that the diseased ovaries were the cause of the changes in the uterus, and that this organ might have been left; but it must be remembered that the uterine disease recurred after six thorough curettings, and that each time the hæmorrhage was more severe, and the changes in the endometrium more marked. The dividing line between benign and malignant adenoma is ill-marked, and as Pozzi says, "where there is frequent recurrence true malignancy is sooner or later developed." The size, appearance, vascularity and friability of the cervix were all strikingly suggestive of malignancy. Taking, therefore, "one consideration with another," it is, I think, a matter for congratulation that an organ whose nutrition showed so marked a tendency "to run riot" should have been totally removed.

A lesson enforced by the case is that whenever menorrhagia or irregular hæmorrhage is a prominent symptom a local examination is not only justifiable, but becomes a paramount duty, whatever be the age or social condition of the patient. The girl consulted another medical man previous to the surgeon who curetted. This gentleman made no examination, but strongly advised matrimony, which advice, considering the girl was then under 16, appears to me very heroic.

Dr. Thring said he must congratulate Dr. Worrall on the successful result of the operation. The case bears resemblance to the cases Mr. Tait describes as of very small sclerosed ovaries. There is no doubt the only cure is the removal of the appendages. There is one point he (Dr. Thring) would join issue with Dr. Worrall in: He should have thought it better to explore more thoroughly and to have removed the appendages of both sides, and the uterus would have atrophied. Hysterectomy is risky. and unnecessary surgery is to be avoided as much as possible. As to suturing the flaps, there does not appear to be any need for this, as the flaps drop together and save any trouble of sutures. With regard to the exploration of the uterus, no one should undertake any cases of this character unless a thorough examination has taken place.

In reply to Dr. Thring, **Dr. Worrall** said: The statement of Mr. Tait that diseased ovaries were often a cause of obstinate menorrhagia referred to small sclerosed ovaries, whereas the specimens presented were multilocular ovarian cysts, which, it was well known, did not usually affect menstruation. He could not agree that the uterus should have been left; the changes in it were so marked and apparently so distinctly malignant that two surgeons, who had seen the case previous to the speaker, had considered it hopeless to attempt any radical operation. Six vigorous curettings had failed to check the marked tendency to recurrence of the disease, and no doubt, notwithstanding the removal of the ovarian cysts, the benign adenoma would have gradually merged into the malignant. The girl was very anæmic and weak, and abdominal section would have probably caused greater shock. The operation adopted, while not involving more immediate danger, left the girl much safer and freer from anxiety as regards the future than would have been the case had the uterus been left.

NEWCASTLE (N.S.W.) MEDICAL SOCIETY.

◆

Meeting of the Newcastle Medical Society, held on June 8, 1893, Dr. Treloar in the chair. Also present: Drs. Eames, Stapleton, Harwood, Smith, Hester, Beeston, Kane, and Nickson.

F. W. **Kane**, L.R.C.P. and R.C.S. Edin., was elected a member of the Society.

Drs. Treloar and Nickson read papers "On Infantile Feeding," dealing more particularly with the selection and mode of administration of artificial foods, which will appear in our next issue.

MEDICAL SOCIETY OF QUEENSLAND.

THE 79th general meeting was held on July 11 in the Courier Building. Present: Drs. Hardie (in the chair), Ure, Gibson, Hill, R. Thompson, Booth, P. Bancroft, Turner, Culpin, Hoggan, E. O'Doherty, Wheeler, Little, Byrne and Love (Hon. Secretary). Visitors: Drs. Lawes and Robertson.

The minutes of last meeting were read and confirmed.

The PRESIDENT made a feeling reference to the recent death of Dr. Griffin, a member of the Society, who was killed by a fall from his horse while hunting.

The Hon. Secretary was instructed to convey the sympathy of members to his relatives.

DR. HILL intimated to the meeting that a bill for the better control of chronic inebriates would shortly be laid before Parliament, and that it would be well if the draft could be submitted to a meeting of the profession before it went before the House. Through the courtesy of the Police Magistrate and Mr. Jodrell (the barrister drafting the bill) this would be possible; and it was agreed that a general meeting of the members of the profession should be summoned by advertisement for Tuesday, July 18.

DR. ROBERT THOMPSON showed two cases where he had advanced the internal rectus, and read an interesting paper on the subject.

Dr GIBSON discussed the paper, and thought the cases very satisfactory.

DR. TURNER showed a complete diphtheritic cast of trachea and bronchi down to the seventh bifurcation.

DR. URE read his paper on "An Outbreak of Diphtheria in a London Suburb," with notes on the ætiology and pathology of the disease.

NOTES ON A LOCALIZED OUTBREAK OF DIPHTHERIA IN A LONDON SUBURB, WITH REMARKS ON ITS PATHOLOGY AND DIAGNOSIS.

BY JOHN URE, M.D. ERLANG., M.R.C.S. ENG., L.R.C.P. IREL.

I DESIRE to bring before your notice this evening in some detail the particulars of an outbreak of diphtheria in 1882 and 1883, in which I treated 155 cases. The insanitary conditions, to which it owed its origin, being discovered and removed, the epidemic came to an end. I more particularly wish, however, to direct your attention to the pathology of diphtheria and to its diagnosis, which has now been for so long a time a subject of dispute. The question I wish to raise is this: Whether the common "household sore throat" is, or is not, diphtheritic?

Apart from any special medical meaning the word has since acquired, we are quite justified in using it to express any membranous exudative disease, the Greek *διφθέρα* itself meaning a skin or leather.

In the year 1882 I was residing in East Dulwich, a suburb of London in the neighbourhood of the Crystal Palace. The soil was of clay, only slightly raised above the level of the Thames, and had been covered not so many centuries ago by its waters. Active building operations were going on in the neighbourhood, and a large field, about eight acres in extent, had been used as a brickfield. This ground, being consequently lower than that surrounding it, had not at first been built upon, but the land all round was formed into streets, and covered with houses. With a view to the filling up of this waste ground and at the same time of utilizing it, this field was thought to be a convenient place in which to dump the road sweepings of the parish of Camberwell.

This had been going on for some time, when I was struck by the number of fresh cases of diphtheria constantly occurring in my practice. They were not of a severe type, and I could not at first account for them; but noticing that they all centred around the brickfield, I naturally connected the deposit of this street refuse with the epidemic, and wrote to Dr. J. S. Bristowe, the Medical Officer of Health, drawing his attention to the nuisance, to the prevalence of diphtheria, and to the mortality being confined to the south side of the brickfield, close to this refuse pit. In one short street, in which six houses only were occupied, there had been cases in four houses and deaths in two. I also pointed out that in a short time houses would be built over this "made ground" or "soft core," as it is technically called. In reply, Dr. Bristowe desired more detailed information. I then forwarded to him a list of all the patients I had attended who had suffered from diphtheria in the preceding 18 months, during which time the nuisance had continued. I also looked through my day-books for some two months before this nuisance began, but found that I had not attended one single case.

I have copies here of my letters, and of the list I enclosed, which speak for themselves. The date given in each case is that on which my attendance commenced. In this list, which numbers 155 cases, I included every patient in which there had been membrane thrown out, whether the resulting ulceration or erosion had been slight or severe, and including: (1) Severe cases of simple diphtheria; (2) cases of diphtheria acccompanied by other fevers; (3) cases of simple throat affection, which, in consequence of the prevailing epidemic, had taken on a diphtheritic character, as shown by the exudation of membrane and presence of fever.

I also pointed out how all the cases absolutely clustered around this brickfield, and the curious coincidence (or consequence shall we say?) that the corporation carts first began to use this field as a slop-shoot shortly before this epidemic broke out. Of the whole 155 cases not more than a dozen occurred in houses at a greater distance than a third of a mile, and of these, two were remarkable. One man, Simons, lived a long way off, but he happened to work in the field; and a second case, a boy named Wynne, came to Dulwich to school, and taking his dinner with him, generally ate it in the brickfield.

I remember one evening passing by the place. There was a mist rising, and the miasmatic exhalations were most disagreeable and sickly.

After this I had an interview with Dr. Bristowe. The nuisance, which could not be denied, was at once stopped; and curiously enough the epidemic in a week or two's time subsided, although sporadic cases would occur now and again in the neighbourhood.

Of these 155 cases six were fatal. Of the six one was complicated by pertussis, four by croup (in three of which tracheotomy was performed), and one very severe case was accompanied by great nervous depression, followed by death in 36 hours.

Of the 149 who recovered no less than 20 were complicated by scarlet fever, two by stomatitis, one by pneumonia, one by synovitis of the knee-joint, one by diarrhœa, and one by typhoid fever; this latter complication being, I believe, very rare. One case was followed by tonsillitis and abscess. One case of diphtheritic croup was, after a week's interval, followed by scarlet fever, and in one case diphtheria came on 14 days after the scarlatinal rash had faded away.

Of the uncomplicated cases 16 were severe. Two patients suffered from a second attack, and also from a third attack; in one this third attack was very severe. One case I noted as a doubtful one. In no single case did paralysis or nephritis result to my knowledge.

In estimating the mortality of diphtheria let us take all cases of diphtheritic croup out of the account, for in them death is generally due to mechanical obstruction. The vocal cords may well be called the *janua vitæ*, for when they are affected the death is nearly always asphyxial. In the three tracheotomy cases I think the fleeting opportunity, the *καιρός ὀξύς* was not secured by a sufficiently prompt operation, and that we waited too long. In threatening circumstances, if the lungs are quite clear of disease, either tracheotomy or intubation should be done early, but I think it should not be withheld through despair at any period of the disease. Setting aside, then, these four cases, I had only two deaths in 149 cases, viz., the one complicated by pertussis, and the one virulent case followed by death in 36 hours. What of the other cases? Were they catarrhal sore throat only, or diphtheria?

This naturally leads us to the question of diagnosis; and here, perhaps, I ought to state that in two of the croup cases my opinion was shared by Dr. Nicod, and by Dr. Heyward, who called me in, and also in his own case by Dr. Bradshaw, whom I attended throughout his illness. My own opinion is that all these cases were diphtheritic. But how is it to be proved? An authority, Dr. Thorne Thorne, stated only in 1891 that "we have failed from the anatomical point of view to differentiate between the several membranous affections of the throat, and that clinical medicine has not supplied the means of distinguishing between the infective or the benign character of throat diseases."

It is now nearly 25 years ago since I first faced this difficulty. I had read a paper at the York Medico-Ethical Society on paralysis of the ciliary muscle after diphtheria, a subject then in much doubt; and after I had, as I supposed, demonstrated the connection between the two, I remember that I was altogether nonplussed by a question put to me by Mr. S. W. North, the late President of the Society of the Medical Officers of Health. How did I know that the affection of the throat that I had treated was diphtheria at all? Until very recently—within the last few months indeed—has it been possible to answer this question with certainty. Many maintain that one great proof of its presence is the fact that the patient has died. Others insist that there must be an abominable fœtor from the throat; others, again, that you must have great enlargements of the cervical glands; others, that paralysis or nephritis should follow the membranous exudation in the throat.

I would note, by the way, that there are different ways of looking into the throat to ascertain the presence of membrane. Some perfunctorily put a spoon on the tongue, in a bad light, look into a dark hole, and say they see nothing. Very likely not. If there is not bright sunshine, artificially concentrated and reflected light from a laryngoscopic mirror should be used. Often the membrane, lying snug behind the pillars of the fauces and the tonsils, will not be brought into view at all, unless the patient threatens to be sick. But even then, if not found, the mucous membrane that we can explore, in proportion to that which is unseen, is very small, and our not seeing it does not prove that there is no membrane.

I look on this snug corner behind the tonsils as a quiet little spot, out of the strong currents, in which the eddies of air circle round and round and deposit their diphtheritic bacilli in peace and quiet.

I have tried, but have not been able to obtain here, a copy of a work published about six years ago by the Sydenham Society, a translation from the German, on "Catarrhal Sore Throat." The writer inclines to the opinion that the true test of diphtheria lies in the great severity of the symptoms and its frequently fatal result. He includes under this heading all cases of croup. He further states that the presence of membranous exudation in the fauces, preceded by rigors, head, limb, and back aches, and followed by erosions under the site of the exuded membrane does not constitute diphtheria unless accompanied by a temperature of (I think he says) 102·6 or upwards. Below that temperature you are not dealing with diphtheria under such conditions, but above it, you are in its deadly presence. He, however, very guardedly states that all cases on this borderland must be most closely watched, *as these simple cases of catarrhal sore throat have a tendency to suddenly turn into real diphtheria.* He gives a number of cases, the result of his own observation (most of them fatal), and looks upon treatment as almost absolutely hopeless. I believe that this observer is wrong in his contentions, and I hope that I may find myself borne out in this opinion by the general sense of this meeting.

I firmly believe that we may meet with cases, ranging in degree of intensity from a slight sore throat, which hardly inconveniences its subject, to cases of the most intense malignity. How often do we meet with paralysis of the ciliary muscles, of the pharynx, of the upper and lower extremities, progressive, (and generally found occurring in the order I have mentioned) for which the patient cannot in any way account? How often do we find cases of acute desquamative nephritis in children and adults in which there has been no known attack of scarlet fever, or diphtheria, or any cause that can be assigned by the patient? Careful enquiry, however, in most of these cases will bring back to the minds of the patients or their friends a recollection of some slight attack of sore throat a short time previous.

Dr. John Haddon writes: "We may be sure diphtheria is present when cardiac irregularity or intermittence accompanies the acute stage, or comes on even so late as the twelfth day."

Dr. Atkinson, of Surbiton: "That the increasing mortality in diphtheria is not due to less successful treatment, but to the numbers of cases of mild type escaping recognition, and not even medically attended."

Dr. J. S. Bristowe, investigating the outbreak of diphtheria at Wellington College in the autumn of 1891, reports a good deal of sickness during the three preceding terms. In the first cases of whooping-cough and of measles, in the second term influenza and roseola, in the third influenza again, followed "by a prevalence of catarrhal affections, with glandular enlargement." After November 18 more serious cases occurred. On the 28th the patients were seen by Sir Andrew Clark and Dr. Woodforde, Medical Officer of Health, in consultation with Dr. Armstrong, Medical Officer to the College. A guarded opinion was expressed as to the true nature of the throat affection, but the closure of the school was recommended and carried out.

On December 3rd Dr. Bristowe visited the College, and in his report refers to two cases in the sanatorium. In one case, which recovered, there was abundant false membrane scattered about the fauces and pharynx; the other "presented all the characteristic symptoms of malignant diphtheria, excepting that no diphtheritic membrane was distinctly visible." This boy died, and the *post-mortem* examination left no doubt as to the nature of the disease which had caused his death, for, apart from other characteristic phenomena, "there were large patches of adherent membrane scattered over the back of the pharynx and epiglottis. similar deposits round the margins of the sacculi laryngis, and one or two patches on the walls of the trachea. All these had been hidden from view by the swollen condition of the pillars of the fauces, tonsils, and soft palate, which were free from membrane." Then alone, its diphtheritic character was admitted. Who can doubt but that the first case, which recovered and "which did not present all the characteristic symptoms of malignant diphtheria," was really a case of true diphtheria? or that the mild preceding cases of "catarrh with glandular enlargement" were also diphtheritic. With this view, however, of an increasing virulence Dr. Bristowe does not concur. He writes, "it does not appear to me to accord with what we know of the behaviour of other better understood epidemic diseases, and because the direct evidence in favour of it seems to me to be altogether insufficient. It is as easy to suppose," he adds, "that constant exposure to wet and cold (of this exposure there is no evidence in this particular outbreak) should produce in such localities, as they produce everywhere else, catarrhal affections of the throat, and that the presence of these masks" (does he mean exudation membranes?) "possibly favours the incidence and spread of diphtheria."

However this may be, the cause of this outbreak was not determined. The health of the persons at the dairies and the health of the cows was found to be good, as also the milk. The water was pure, the drainage good, only a slight leakage of illuminating gas being found. Dr. Bristowe was unable to trace the source from which the specific infection entered the college, but there is no doubt that cases of the disease had occurred in neighbouring villages in September and November.

With reference to the presence or absence of membrane Dr. Sydney Martin, of University College, states that "cases occur and end fatally in which membrane could only be discovered microscopically, and then but a few minute flakes."

Dr. Thursfield (Shrewsbury), at the International Congress of Demography, stated that he had been called upon to investigate numerous attacks of diphtheria in the past 18 years, and that he considered the ordinary accepted ideas as to the etiology of the disease were one-sided and misleading. He believed "the failure of sanitary improvements to stop the increase of diphtheria was to be attributed to the dissemination of the disease by very mild, medically-unattended, and therefore not notified, cases generally acting through school agency."

Mr. Lennox Browne is of opinion that "mild cases of faucial and tonsillar exudation cannot be distinguished from follicular tonsillitis, and as Dr. Jacobi was the first to point out, was more frequently insanitary and diphtheritic in its nature than is generally believed."

In an editorial by, I think, Mr. Ernest Hart, the wide diffusion of the diphtheria bacillus is explained by reason of the multitude of mild diphtheritic attacks which exist, and which are only recognized in their true character on such occasions as they are found to be closely identified with some severe or fatal attacks exhibiting obvious and unquestionable signs of the disease in its more typical forms. The writer adds: "The ordinary infectious household sore throat should be classed amongst the milder attacks of diphtheria which are so common."

Fortified, then, with these opinions, I would maintain that though the mortality was small in the Dulwich outbreak, still the epidemic was true diphtheria, and that it was caused by the nuisance I have described.

It is now generally admitted that both diphtheria and typhoid are fœcal diseases, and that the bacilli of both find excretory refuse favourable sites for development, the only difference being that the bacillus of Löffler grows better on the surface, and that of Eberth in the deeper parts of collections of filth. This connection of diphtheria and fouling of the surface would account for the greater prevalence of diphtheria in country communities.

Roux and Yersin were the first, I believe, to isolate the virulent chemical poison produced by the growth of the bacilli, growing it in veal peptone broth. They found that the broth culture quite free from bacilli will kill rabbits by paralysis. They believe this poison is a ferment (diastase)—heating, attenuating—and boiling, destroying it. They sum up: "*L'infection n'est pas produite par un microbe envahissant les tissues, mais par la diffusion dans l'organisme d'une substance toxique, preparée a la surface d'une muqueuse, pour ainsi dire en dehors du corps.*"

Dr. Sidney Martin, in his Goulstonian lectures last year, compares the chemical pathology of diphtheria with that of anthrax, infective endocarditis and tetanus; and from these most interesting lectures I will make the briefest possible extracts:—

"Anthrax and infective endocarditis are eminently febrile, while diphtheria and tetanus have symptoms specially referable to the nervous system. In all the symptoms are due to a primary infective agent or living contagium. In diphtheria and tetanus the infective agent is only found at the point of introduction of the disease, and does not diffuse itself by the blood through the body. Chemical investigation shows that the bacillus when introduced into the body begins to digest the proteids, causing a local œdema, which serves as food to the bacillus. These digested products gradually accumulate and cause death. In diphtheria these products are of two kinds—one formed from digested proteids, namely albumoses; the other non-proteid, an organic base with specific action. Microscopical examination of diphtheritic membrane discloses the presence of the bacillus diphtheriæ *in the superficial layers only on its free surface*. In one case in which there was congestion and erosion of the tonsils and pharynx only, found after death, and no membrane, cultivations of the throat yielded only micrococci, and not the bacillus diphtheriæ. In separating these poisonous products from the blood, from the spleen and other organs, absolute alcohol precipitates most of the albumose, which, when dried, is a light yellowish brown powder. The spleen is found to be the chief repository of the diphtheritic poison in the body. The albumoses of diphtheria cannot be distinguished from those of anthrax or peptic digestion by chemical means, but only by their physiological effect. When animals are inoculated, fever is the first symptom—higher with a small dose, less with a large dose; in all paresis of the muscles is a definite symptom—not a complete paralysis, but a weakness of the muscles of the limbs generally, the respiratory muscles and the heart. One striking feature of the action of these albumoses is their slow progress and their prolonged effect. Microscopic examination of the bodies of the rabbits on which the experiments were made disclosed no micro-organisms, but the blood was very slow in coagulating. The peripheral, motor, sensory and sympathetic nerves were found at certain points, attenuated and degenerated ; the white substance of Schwann becoming thin, and in some places disappearing altogether. The primitive sheath is intact throughout, but in many cases the axis cylinder is broken. In some cases the degeneration is partial, a few of the nerve fibres only being affected. The heart muscle is found in all cases in an advanced state of fatty degeneration. The spinal cord, spinal ganglia, medulla and brain were all found to be normal. These nerve lesions, which have never been repaired, are found in animals that have recovered from the poison, and takes place even during the acute disease. The precipitate obtained from diphtheritic membrane gave the same chemical and pathological results as the albumose found in the blood and spleen of diphtheritic patients, but its poison is much more virulent."

I am afraid that I have condensed the foregoing extracts so much as to make them tiresome and non-consecutive, but the facts are notwithstanding of the greatest importance. They serve to show clearly how cases of diphtheria may vary from a slight malaise to an attack of virulent malignity.

The diphtheria bacillus, bred on the air-exposed surface of fœcal matter, is borne either by sewer gas or air currents of any kind to a moist mucous surface.

Finding a suitable soil, it grows, and excretes or produces in some way a ferment, which Dr. Martin calls a secondary infective agent ; and by so doing produces fibrous œdema or exudation. It has already been shewn that the bacillus causes peripheral nerve degeneration. I venture to suggest that primary exudation is effected by the action af the bacilli, cutting off the inhibitory influence of the sympathetic by small local paralyses of its terminal branches, thus giving rise to dilatation of the capillaries, to exosmosis, and to exudation of fibrin. Film after film, layer after layer of membrane is thus thrown out, *and as the bacilli can alone live and flourish on the free surface of the membrane* (for they are never found anywhere else) a protecting shield is gradually built up against the enemy.

It is a long time now since I first remarked one constant sequence in the succession of symptoms in all and every case of diphtheritic sore throat that I had seen, and that is that all the constitutional symptoms, the headache, the back and limb-ache, the general feeling of depression and illness, and the fever, were all lessened for the time, and often removed, when first the membrane appears in the throat. The besieging hosts of the bacilli have been beaten back by the shield of exudation membrane. This membranous shield then becomes loosened, is coughed up or swallowed, and the attack is at an end, no great harm having been done, the illness being entirely a local and not a general one.

The severity of an attack of diphtheria depends upon the dose of poison at work, and curiously enough small repeated doses produce a more powerful effect than one large dose, the fever after the small doses being much higher. The mischief worked by these repeated small doses should render us even more anxious and careful than we are to discover the source of the disease and the insanitary conditions from which it arises.

We must not be content to simply say that such conditions lower the general health, and so let it pass, for it is not unlikely that where insanitary conditions exist we are being attacked all the time by disease germs. When we send our patients away from these surroundings to the country or sea-side the improvement is instant.

In conclusion, I submit that in malignant cases "the true diphtheria" of some authors the entirely different symptoms are caused by the secondary product, or ferment, which is as deadly as snake venom, and which, acting as a blood poison, and through the blood, causes, like snake venom, intense depression and coma, the blood being so altered as to remain fluid long after death. May we not in this way reconcile the long conflicting opinions of the profession on the subject ?

Are not the milder cases caused by the bacillus alone, the primary infective agent, and the more severe by its product, or secondary infective agent, the albumose poison ?

DR. LOVE, in thanking Dr. Ure for his paper, drew attention to the parallel between diphtheritic toxæmia and snake poisoning, both in clinical symptoms and pathological effects. He regretted that he had been unable to complete his paper on the "Therapeutics of Kerosene" in time for the meeting. A certain clergyman had been using kerosene largely in and around Brisbane, and coming between the medical men and their patients, to the discredit of the former and the injury of the latter. He, however, deferred his remarks on this subject to a future date. He drew attention to the usefulness of large doses of corrosive sublimate (30 minims of liq. hydrarg. perchlor. every hour), and of the local use of peroxide of hydrogen.

DR. GIBSON thought that these large doses of corrosive sublimate were possible, because it was not much absorbed. He thought inunction or hypodermic medication might be better. He questioned Dr. Ure's suggestion that the exudation was protective. The protection lay rather in the barrier of the leucocytes in the submucous connective tissue. He was glad to see that Dr. Ure looked upon the disease as local rather than systemic at first.

DR. ROBERTSON drew attention to the theory that the cocci cause the general symptoms rather than the bacilli, while the local lesions were due more to the bacilli. He had used peroxide of hydrogen, also lactic acid and lime water. He mentioned a case in Ipswich, which had been taken out of the doctor's hands by the clergyman referred to by Dr. Love. The case died next day.

DR. TURNER expressed a hope that in cases such as those referred to by Drs. Love and Robertson that a certificate would be refused by medical men. He recognised four conditions in which the diagnosis might be difficult:—(1) Cases of membranous croup in which no membrane could be seen. In such cases he had always detected membrane above the larynx, *post-mortem*. (2) Mild cases with limited exudation; general symptoms absent. (3) Cases which look like diphtheria, but are not so. A species of membrane is present, but it is not diphtheritic. (4) Catarrhal throats which become diphtheritic after a time. Children with catarrh are more liable to contract diphtheria, especially if they have big tonsils and adenoids. Diphtheritic croup was very frequently followed by systemic poisoning after the danger of asphyxia was gone. He had rarely observed coma in cases of toxæmia. Patients, as a rule, die from progressive cardiac weakness, with intelligence clear to the end. As to treatment, the outlook was not very hopeful, according to his hospital experience, though it must be remembered that few but the worst cases came to hospital. He condemned forcible removal or the application of strong caustics to the membrane, as such treatment was followed by rapid extension. Local applications to be of value should be used very frequently; the spray in children over three years of age every hour night and day; in younger children, brushing. He was in the habit of using lime water and carbolic acid. He had tried papain, and found it no better and very costly. As to internal treatment, he had pushed alcohol to six ounces in the 24 hours, but without any obvious good effect. He believed that much of the value of perchloride of iron lay in its local effect during swallowing. He had used perchloride of mercury frequently in laryngeal cases, but had not come to any positive conclusion as to its value. Emetics should be given up, as they were depressing and of little value. In nasal diphtheria local treatment was very important; the membrane loosens early, and can be syringed out. He preferred forcible syringing with boracic lotion or salt and water once or twice daily. In some cases, however, the membrane was firmly adherent, and could not be got away. In laryngeal stenosis a small proportion got well without operation—cases with stridor, but not great obstruction. He had practised intubation with good results. For some cases where the membrane was low down and the general condition fair, tracheotomy was necessary; but for the majority of cases he preferred intubation. It was much easier, quicker, gave less distress to the patient, and the inflammatory condition of the neck following tracheotomy wound was avoided.

DR. WHEELER had seen cases with no membrane visible, but all the symptoms again and again. Last year in Toowong he had seen many cases. He was in the habit of using a spray of weak chlorine water very frequently as a local application. In cases of cardiac weakness he believed that strychnine injections were useful.

DR. LITTLE would make his remarks as practical as possible. He always asked himself —"What is the matter?"—often a difficult question to answer. Whether membrane was seen or not, the reply should be very cautious. He used to think follicular tonsillitis was never diphtheritic, but had been undeceived by several severe lessons. As to treatment by medicine, he had no confidence whatever. As regards tracheotomy, he had had some successes, and even in unsuccessful cases death was easier. So far he had been charmed with the ease and success of intubation. He warned members against the use of chlorate of potash in large doses, as he had seen a fatal result from blood dyscrasia in a boy of 10, who had been taking 5gr. of the drug every four hours.

DR. CULPIN related a case where kerosene had been been used, and appeared to have done some good.

DR. HARDIE thought that Dr. Little's remarks were too strong; as only 30 per cent. of all cases died, it was impossible to say how far treatment was responsible for this. It was difficult to tell the real mortality of diphtheria outside hospitals, as the nomenclature of registration was so very variable.

DR. URE, in reply, thanked the members for the kind reception his paper had received.

The 80th General Meeting was held on August 8 at 8.30 p.m. in the Courier Building.

Present: Drs. Hardie (in the chair), Garde, Clowes, Little, Byrne, Gibson, Turner, Hoggan, Culpin, and Love (Hon. Sec.).

Letters were read from Drs. Lilian Cooper, Sutton, T. L. Bancroft, and McDonnell, thanking the members for their election; from Dr. P Smith, promising a paper for September; from Dr. Ryan, of Gympie, offering 40 volumes of "Braithwaite's Retrospect," 61 to 100 inclusive, for the Society's library; from Dr. Garde, of Maryborough, promising some notes on a case of Hydatids of Liver; from Dr. McDonnell, of Toowoomba, promising notes of a case of Electrolysis of Nævus; from Dr. T. L. Bancroft, accompanying an excellent bromide enlargement of a case of advanced tubercular leprosy in a Chinaman.

The **HON. SECRETARY** was requested to thank Drs. Ryan and T. L. Bancroft for their generous donations. The curator of library announced that he had received a supplementary parcel of books from Dr. Smith, including some valuable atlases, for which additional gift the thanks of the Society were accorded him.

DR. URE wrote, apologizing for his enforced absence and relating a case where a clergyman, mentioned at last meeting, had been in attendance on a case of laryngeal diphtheria, which he had been treating with kerosene, and which he would not hand over on the arrival of two medical men. He thought the fact could not be too widely known in the event of a death certificate being required.

The **PRESIDENT** stated that he had again reminded the Colonial Secretary of his promise to find rooms for the accommodation of the Society, and that he had been referred by that official to the Under Secretary for Works. As a result of this interview a formal letter was written by the Hon. Secretary, asking for accommodation, and in answer a letter was received from the Under Colonial Secretary, informing them that the Secretary for Works had allotted four rooms in one wing of the old Education Office, William-street, to the United Service Institution conditionally that the following three Societies, viz., Medical, Royal, and Royal Geographical, were allowed space for their libraries, and free access for meetings when required in the long room fronting William-street.

The **PRESIDENT** congratulated the meeting on the success of their efforts, and the Hon. Secretary was instructed to convey the thanks of the Society to the Secretary for Works on his prompt and courteous action. It was left in the hands of the President and Hon. Secretary to make all necessary arrangements with the other tenants.

The **HON. SECRETARY** announced that in accordance with the resolution passed at last meeting, a general meeting of the profession had met on August 8 to consider a draft bill for the better control of chronic inebriates, which was shortly to be laid before Parliament.

The following resolutions had been unanimously adopted:—

(1) "That in the opinion of this meeting chronic inebriety should be regarded as a disease and treated accordingly."

(2) "That in the opinion of this meeting power should be given for the compulsory committal of chronic inebriates to an institution for treatment."

(3) "That every facility should be given to inebriates to voluntarily enter institutions for treatment."

(4) "That persons addicted to the habitual use in excess of drugs, such as opium, morphia, chloral, cocaine, &c., should come under the provisions of the Inebriates Act."

Dr. Garde then read his paper on "A Case of Hydatids of Liver. treated by Incision and Drainage," as follows:—

NOTES ON A CASE OF HYDATIDS OF LIVER, TREATED BY INCISION AND DRAINAGE.

By H. C. Garde, F.R.C.S. Ed., Res. Surg. Wide Bay and Burnett District Hospital, Maryborough, Q.

◆

Elizabeth W., aged 19 years. Healthy up to February, 1892, when she had a severe attack of jaundice, accompanied by colicy pains over the region of liver, which recurred occasionally up till January, 1893, when she had a second attack of jaundice and felt some enlargement of liver with tenderness on pressure; feverishness and loss of appetite; was attended through both illnesses by Dr. Morgan of Gympie, who kindly sent me the case for operation.

Previous to my seeing her, but subsequent to her last attendance by Dr. Morgan, she had been under treatment in hospital and had been punctured over enlargement without abatement of symptoms.

On seeing her early in May the liver was distended to within half an inch of the umbilicus. Having satisfied myself that it was a case of hydatids, I decided to treat it by incision and drainage.

On May 24, the patient being under chloroform, an incision four inches in length was made over the most prominent portion of the tumour, and the peritoneum carefully opened. The liver looked healthy. On passing a finger into the abdomen an adhesion could be felt an inch to the right of incision. Sponges were next packed around the edges of wound and a large-sized needle of aspirator passed into substance of liver. After passing between two and three inches, fluid appeared. I then passed a long, narrow-bladed knife alongside the needle and enlarged the opening until it would admit the index finger freely; about three pints of fluid, containing cysts varying in size from a pea to that of a small orange, came away. I then introduced two wire retractors, so as to draw the liver well up to the abdominal wall, withdrew the sponges, and sutured the liver to the abdominal peritoneum; introduced a large-sized drainage tube seven inches in length, and washed out the cyst with a weak solution of Condy's fluid. The contents of cyst were somewhat purulent, which accounted for the rise in temperature which took place every evening since coming under notice. The after treatment consisted in washing out the cyst once a day with weak Condy until the discharge looked healthier, when plain warm water was substituted, the tube being shortened from time to time as the cyst got less, until now only a sinus remains, which probably in time will close up No rise in temperature took place after the operation, except on one evening, fifteen days afterwards, when I tried to remove the sutures.

Remarks.—Although hydatids are of frequent occurrence in the southern colonies, they are comparatively rare in this district; and the treatment of such cases being still to some extent debatable, I give you these few notes on the case, as they may serve to help to show that incision and drainage in cases of fairly large sized hydatid cysts, if not in all, is safer than the apparently simpler method of tapping or aspirating.

Dr. Gibson then read for Dr. McDonnell, a paper on "A Case of Electrolysis of Nævus." Both papers were subjected to free discussion.

MEDICAL SECTION OF THE ROYAL SOCIETY OF NEW SOUTH WALES.

◆

The Meeting of the Medical Section of the Royal Society of New South Wales, adjourned from June 23, was held on July 21, 1893, at 8.15 p.m. at the Society's Room, Sydney. The chair was taken by the Hon. Dr. MacLaurin, M.L.C., and about 30 members were present.

Prof. J. T. Wilson completed his remarks on "Recent Investigations on the Structure and Relations of Nerve Fibres and Cells."

The discussion on "Peripheral Neuritis" then took place. As Dr. Shewen was unable to be present, the Secretary read the following communication as his (Dr. Shewen's) contribution to the discussion.

Dr. Shewen said: Being away from Sydney at the last meeting of this Section, I did not have the pleasure of hearing Dr. Graham's paper, and this evening, owing to a professional call into the suburbs, I am unable to take part in the discussion of this very interesting subject. I have, therefore, asked Dr. Rennie to read for me what I have to say.

First of all, as to the Chinamen here who so frequently come into the hospital with a peripheral neuritis, complaining of feeling so tired, and with tender calf and thigh muscles. The question is often asked whether these men are suffering from beriberi in a mild form. I have for some time held the opinion that they are. But in order to arrive at such an opinion it is necessary to take into consideration the habits of the Chinamen, together with the more severe form of the same disease which is so frequently met with amongst their countrymen in China. It is a matter of history that beriberi in its worst form has followed the wake of ill-fed armies in the east, and that as the food was improved so beriberi disappeared. Beriberi developed in this way was not confined to the coloured races, as can be proved by reference to various army reports, and that it has totally disappeared under a proper diet is also a well known fact. Its cause and its prevention are very similar to those of scurvy. This disease, which is now much more commonly met with in China than elsewhere, presents in that country exactly the same symptoms as that which used to be so prevalent in the armies of the east, and is to my mind the same, and is brought about by the same cause, viz., bad food. Anyone who is aware of the inconceivably filthy food which the lower and poorer orders of the Chinese feed upon can hardly be surprised that they should suffer from a disease which, as I have said, commonly followed the ill-fed armies of the east. I have lately been told by a medical man who has been in hospital practice in Hong Kong for some years past, that the milder or dry form of beriberi is less common there than the acute, but that both are characterized by cardiac debility, varying only in intensity. In the acute form the patient dies before the usual signs of peripheral neuritis can be observed. Our Chinamen very rarely die of the disease, and get well without any medicine when properly fed, just as the Chinese do in their own country, provided they do not die from effusion into the serous cavities. I think a general consideration of these facts must lead us to the conclusion that the disease here is beriberi, and that it is caused by want of proper food or bad food, or perhaps both. Analogy would point to its being something poisonous in the food when we recollect how often we get peripheral neuritis as a sequel to diphtheria, and to tippling habits in the female.

Dr. Sydney Jones said: "I have not had many opportunities of observing peripheral neuritis as occurring amongst the Chinese, but I have seen numerous cases in Europeans. It is only within the last ten or twelve years that light has been thrown upon the pathology of the affection. Prior to 1881 we were disposed to regard the disease as one of central origin; and as lately as 1884 so good an observer as Dr. Broadbent said at a meeting of the Medico-Chirurgical Society of London, that "without doubt alcoholic paralysis is a disease of spinal origin." Lancereux, of Paris, in 1881 was, I think, the first to point out that the peripheral nerves exhibited pathological changes in this disease. Since that date numerous observations have been made upon the condition of the nerves, and there is now a general agreement amongst pathologists that the disease is essentially an inflammatory affection of the parenchymatous and interstitial tissues of the peripheral nerves. Dr. Campbell, however, in a paper published in the *Lancet* of June 3 of this year, reports some cases in which he found degeneration of the posterior tracts of the cord, and in the medulla; and Dr. Oliver in a subsequent number of that journal narrates a case which gives support to Dr. Campbell's observations. Looking at the disease from a clinical standpoint, and remembering the grave cerebral disturbance which is sometimes seen, it does seem likely that although the toxic influence is exerted primarily upon the peripheral nervous tissue, yet that when long continued the inflammatory changes which it causes would spread upwards to the nervous centres. Of 25 cases, of which I have more or less complete notes, in 11 there was a history of alcoholism alone; in four of alcoholism and syphilis; in one of alcoholism and gout; in one of alcoholism and arsenical poisoning; in one of alcoholism and influenza; in two of rheumatism; one occurred in a diabetic patient; two were post diphtheritic; one occurred after typhoid fever; and one was a case of beriberi. The toxic influence of alcohol, occurring in no less than 18 out of 25 cases, was, as might be expected from the great prevalence of intemperance, the most frequent cause. It is questionable whether uncomplicated syphilis ever causes peripheral neuritis. In my cases, it will be observed that the four patients who were undoubtedly syphilitic were also alcoholics. Of the two post diphtheritic cases, one was in a man who exhibited the ataxic form of the disease in a well marked way, and who made a complete recovery. The other was in a child, and was fatal from extension of the paralysis to the muscles of respiration. I have not included under this head cases of paralysis of the muscles of deglutition occurring after diphtheria, of which I have seen several." The speaker then went on to describe the various sensory, motor, vaso-motor, and trophic affections which are observed in peripheral neuritis of alcoholic origin, pointing out the fact that the extensor muscles are always much more affected than the flexors, and that the anterior tibial group of muscles, innervated by the external popliteal nerve, is almost invariably the first to be affected, and that "foot drop" is therefore one of the earliest and most marked of the motor troubles. In conclusion, he spoke of the gastric and hepatic complications in alcoholic cases, and said that although tubercle was said to be a frequent complication, he had met with it in only a very few cases.

Dr. Angel Money said that perhaps the most remarkable feature of peripheral neuritis, regarded as a whole, was the undoubted fact that the motor fibres or the sensory fibres might alone suffer. He had seen cases of alcoholic and diphtheritic paralysis in which the motor palsy was dominant, there being hardly any affection of sensation. On the other hand, the degree of motor paralysis was sometimes very slight, paræsthesia and hyperæsthesia being very marked. Similarly a few cases of inco-ordination of movement, with trifling sensory disturbance and slight loss of power (due to alcohol and diphtheria) had come under his notice. Some years ago he made sections of the nerves and spinal cord and brain of severe cases of lead paralysis. The chief fact was that the connective tissues scarcely suffered at all, the parenchyma of the fibres of the nerves being intensely affected. Dr. Money remarked that the pyramidal fibres extending from the great pyramidal cells of the motor cerebral cortex probably suffered along with the motor nerves of the limbs in some cases of alcoholic paralysis. He had observed spasm of muscles and increased knee-jerk in the earliest days of at least one case of alcoholic paraplegia. From his experience in this colony he corroborated Dr. Jones' belief that men were more liable to suffer from alcoholic neuritis than appeared to be the case in England. At the present time he had under observation a man aged 46, in whom there was considerable paralysis of all four limbs, with some mental disturbance, with œdema and sweating of the legs and feet, but with scarcely any pain, and only some slight analgesia on the front of the legs—a period of "sensory irritation" not having occurred at all. Doubtless in some instances the neuritis was due in some measure to the action of the poison on the central nervous apparatus. He had, in common with Drs. Kidd and Abercrombie, found marked changes in the large nerve cells of the anterior horn of the spinal cord in cases of diphtheritic paralysis. With regard to the diagnosis of locomotor ataxy from alcoholic paralysis, it must be remembered that the difficulty was increased by the fact that in some cases of locomotor ataxy ("pseudo-tabes") the nerves alone had been found diseased, the spinal cord being found to be free from sclerosis. He could not help thinking that the mere length of the nerves of the limbs was one predisposing reason for their suffering from neuritis from so many and such varied causes.

Dr. Steel mentioned two cases of peripheral neuritis which had come under his notice, the etiology of which was extremely doubtful. The patients were both boys, aged three years respectively. One case ended fatally from paralysis of the diaphragm and other respiratory muscles. In this case, so far as could be observed, there were no evidences of diphtheria. He knew the great difficulties in the recognition of diphtheria in children. The child suffered from a catarrhal attack some six weeks prior to the manifestations of neuritis. These began with inco-ordination of gait, the little patient falling about. In attempting to rise from the recumbent posture he went through a series of actions minutely resembling the well-known description by Gower of "climbing up the thighs"; knee-jerks absent in both cases. The second case recovered; no history of any previous illness. Dr. Muskett saw the case which ended fatally, and thought it most likely post-diphtheritic. Might the peripheral neuritis not be post-influenzal? Pepper, in his great work just issued from the press, states that persistent peripheral neuritis was very common after the great epidemic of influenza in America in 1890.

Drs. Wilkinson, C. J. Martin and the Chairman made a few remarks, and Dr. Graham briefly replied.

A vote of thanks to Dr. Graham and Prof. Wilson was passed with acclamation, and the meeting adjourned.

The second meeting of the year of the Medical Section of the Royal Society of New South Wales was held at the Room of the Society on Friday evening, August 20. In the unavoidable absence of the Hon. Dr. MacLaurin, Dr. Fiaschi, ex-chairman, took the chair. Forty members and visitors were present.

Dr. C. J. Martin, B.Sc., gave a very interesting paper on "Recent Developments of the Question of the Coagulation of the Blood." At the conclusion of the paper Dr. Martin illustrated some of his remarks by two or three successful experiments on animals, in which he succeeded in inducing intra-vascular clotting by the rapid introduction of certain substances into the jugular veins of the animals.

A vote of thanks to Dr. Martin for his very interesting paper and experiments was carried with acclamation.

SUBURBAN AND COUNTRY PRACTICES wanted. Clients waiting. L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of Australia on application to L. Bruck, Medical Agent, Sydney, or P. P. Wilcocks, Medical Agent, Melbourne. No charge to Principals.

BOWRAL.—Resident Patients and Convalescents received by Dr. Wilson.

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, SEPTEMBER 15, 1893.

EDITORIALS.

THE PERT CASE.

By the modified verdict of manslaughter by the jury at the Central Criminal Court, Sydney, on August 11, another celebrated case (from a medico-legal point of view has been removed from the catalogue of capital crimes. Briefly stated, Thomas Pert, who is described by His Honour, Sir George Innes, as a "perfectly quiet, unoffending and inoffensive man," was set upon by one of the gangs of ruffians known as "pushes," knocked down in sight of his own dwelling, and brutally kicked. He got up, staggered a few yards, again fell, and was carried indoors, where he died in a few minutes. It happened at ten o'clock in the morning, and this is important as regards the reliability of witnesses who saw the kick which was the cause of his death, according to the evidence given by Drs. Jamieson and Rennie, and Professors Anderson Stuart and Wilson, by producing asphyxia from pressure on the medulla oblongata of a blood-clot, consequent on rupture of the right vetebral artery, causing cardiac and respiratory paralysis. Dr. Milford, who made the first *post-mortem* by order of the Coroner, stated, however, that in his opinion the cause of death was asphyxia from the effusion of blood on the lungs, owing to the rupture of at least two of the blood-vessels in their substance.

Dr. Milford's examination was made at night, on June 26, in the presence of two medical students, who gave evidence at the trial to corroborate his views. We will pass this over as not requiring comment, but must protest against *post-mortems* in important cases being made at any time except in broad daylight. How easy to pass over a slight bruise or discolouration of the skin by gaslight, and we venture to say Dr. Milford would no doubt have found the ruptured vertebral artery had the examination been made in a good light. No disease of the internal organs was found, no fracture of the skull, but all over the surface of the brain he (Dr. Milford) found effused blood, which had filled all the spaces of the convolutions. He removed the whole of the brain and found a large blood clot at the base. The effusion of blood resulted, in his opinion, from the rupture of a blood-vessel at the base of the brain, but he was not able to find the exact spot. He found an external bruise over the seventh cervical vertebræ and "clotted blood in the spinal canal," surely plain evidence of the cause of death as suggested by the other medical witnesses.

On the 27th June Dr. Jamieson, who had been directed to make a further examination, found no extravasated blood in the air tubes. There was no evidence given at the trial of hæmoptysis, which we should certainly expect if death were due to the lungs being flooded with blood, as stated by Dr. Milford. Dr. Jamieson, on dissecting the right side of the neck behind the ear, found all the deep tissues in this region were extensively infiltrated with effused blood, the contused parts surrounding the ruptured vertebral artery on the right side and its accompanying vein.

Dr. Milford stated at the inquest that he had formerly had a disagreement with Dr. Jamieson, and it is much to be regretted that squabbles should occur between medical men at any time, but much more so when important issues are pending, as in this instance. Such expressions of Dr. Milford's as "I did not see any necessity for skinning the body, so I went away" (referring to Dr. Jamieson's action in the second *post-mortem*), and again "the injury described by Drs. Jamieson and Rennie, in his opinion, existed only in their imagination, and he was positive that death was due to asphyxia through the flooding of the lungs with blood," ill become a professional witness, bring discredit on the profession, and give opportunity for unfriendly critics and quacks to disparage those who are legally qualified and honestly endeavouring to uphold the ends of justice and the honour of the profession.

Dr. Tarrant, when called as a witness, apparently in support of the views of Dr. Milford, said *he had never known* of a death occurring from violence without there being external marks on the body. Though this is quite likely, yet we hardly think he would say, after the experience of this case, that such a thing may not easily happen, especially when we remind him of the well-known case related by Casper of a waggoner who was crushed against a tree by a loaded waggon. He was found dead the next morning. The only external injuries were a slight abrasion upon the left arm and one upon the right temple. On opening the body, however, the most striking evidences of violence were discovered. From the spinal canal a large quantity of blood escaped. The spinous processes of the first thoracic vertebræ were broken off. The left pleural cavity contained 30 oz. of blood. The pericardium was torn completely across, and the heart severed from its large vessels.

Again, Reese's "Medical Jurisprudence," page 96, says: "It sometimes happens in cases of severe injury that death has resulted from internal lesions with few or *no* external marks to indicate them."

Having carefully considered the medical evidence given in this case, we are of opinion that the conclusions arrived at by Drs. Jamieson and Rennie from the injuries found by them on making the second *post-mortem* were the correct ones. We also desire to express our extreme regret that Dr. Milford, who has held some important positions in the medical world of Australia, should have exhibited such strong feeling with regard to the conscientious endeavour of these gentlemen to place clearly before the court at the trial the further important facts which they had discovered.

THE XI INTERNATIONAL MEDICAL CONGRESS.

WE stated in our last issue that this Congress, which was to have been held in Rome this month, had been postponed, probably on account of the outbreak of cholera in Europe; we have now received a letter from Rome, informing us that "in consequence of the sanitary condition of several of the European States, which prevents their medical men leaving home, and, following the advice of many of the most prominent scientists, both Italian and foreign, the Executive Committee of the above Congress has decided by a large majority to postpone the Meeting till April, 1894."

LETTERS TO THE EDITOR.

MEDICAL ETIQUETTE.

(To the Editor of The Australasian Medical Gazette.)

SIR,—I addressed the following letter to Dr. Du Moulin, but having waited until to-day for an answer and none being forth coming, I, upon the advice of some of my medical friends, submit the correspondence to you for an opinion.

I deplore the necessity occasionally arising for medical men to thus publish the disregard shown by some practitioners in Australia of those nice acts of professional delicacy and courtesy so strictly followed in the old country.

Will you kindly give me and the profession at large your ruling as to whether Dr. Du Moulin, in keeping on the case after my return home in the unceremonious way he did, was in keeping with the teachings of medical ethics? I am, Sir, faithfully yours,

LOUIS FITZ-PATRICK.

Dubbo, August 2, 1893.

[COPY].

"June 12, 1893.

"Dr. Du Moulin, Dubbo.

"Dear Sir,—During my unavoidable absence from home last night, Mrs. G., who had me engaged to attend her during her confinement, sent for me, that event commencing during the night. I called at her house this afternoon, and find that you had been desired to assist her during my absence. Of course I quite understand their anxiety; but according to my ideas of the rules of professional etiquette, I now expect you to allow me to continue the attendance, I paying you the agreed fee of £3 3s.

"An answer will oblige yours truly,

"LOUIS FITZ-PATRICK."

[We are of opinion that under the circumstances stated by Dr. Fitzpatrick, Dr. Du Moulin should have ceased to attend the case on the return of the former, whose patient she was. We moreover think it a matter for regret that Dr. Du Moulin should not have thought it a duty to replace the patient in the hands of the doctor with whom she had made an engagement immediately he was available, and without having by his delay rendered a request to do so necessary. Ed. *A.M.G.*]

HEREDITY OR CHANCE?

(*To the Editor of The Australasian Medical Gazette.*)

Sir.—To those of your readers who are interested in the subject of Heredity the following families, which I have lately come across in my practice, may be interesting:—

Family No. 1.—A, *æt.* 63, pterygium left eye. B, *æt.* 38 (son of A), pterygium on right eye for 10 years, and on left eye for six years; both removed under cocaine. C, *æt* 66 (brother of A), senile cataract both eyes; right lens extracted uncomplicated. D, *æt.* 43 (son of A), severe injury to left eye by splash of copper, the eye having to be excised.

Family No. 2.—A, *æt.* 63, senile cataract both eyes; both lenses extracted without complications. B, *æt.* 32 (son of A), traumatic cataract right eye, following blow from cricket ball, and subsequent divergent strabismus, for which adjustment of the right internal rectus muscle has been performed. C, *æt.* 25 (son of A), convergent strabismus left eye, due to a very large amount of hypermetropic astigmatism, which, however, does not occur in the other members of this family; also small pterygium on the right eye.

Family No. 3.—A, *æt.* 15, double congenital cataract. B, *æt.* 11, double congenital cataract. C, *æt.* 13, double congenital cataract. All these are very slight, and very fair vision is present. D, *æt.* 62 (father's half-brother), double senile cataract. E, *æt.* 60 (father's half-sister), double senile cataract. F, *æt.* 54 (father's half-brother), commencing cataract right eye. D, E, and F are half brothers and sister to the father of A, B, and C.

Yours, &c.,

ROBERT THOMPSON, M.D., M.R.C.S. Eng.

Brisbane, April 21, 1893.

THE MEDICAL PROFESSION IN AUSTRALIA.

(*To the Editor of The Australasian Medical Gazette.*)

Dear Sir.—I felt much interested in reading Mr. Bruck's article upon the standing of the medical profession in the colonies. The extremely degrading lodge practice calls out for a remedy. Medical men, after going through an expensive and exceedingly difficult education, bow down to shop-keepers, labourers, &c., &c., in a way that is totally at variance with the high dignity of the noble calling they represent. I recollect about 12 years ago, after leaving the Sydney Hospital, trying to obtain the position of medical officer to a lodge. (I am exceedingly pleased that I did not get it.) I was recommended to call on several people, who were over the Society, and after going to see some of them I found I would have to visit a salesman in one of the George-street shops. I accordingly went and paid my respects to this "gentleman" across the counter. I always look back upon this little episode with the deepest humiliation, and feel thankful that my work has fallen within the walls of hospitals, where I am free from lodges. What is the remedy for this shameful state of things? Before this I have recommended that a subscription of £10 be paid by medical men into a fund for supporting medical men in towns where other medicos have taken lodges at too low a figure. If this fund were available, medical men might be able to live in localities and sustain the etiquette of the profession where others had taken lodges at a cheap rate in order to oust them.

Yours, &c.,

JOHN ERNEST MOFFIT,

L.R.C.S., L.K. & Q.C.P.I., Res. Surgeon.

Creswick Hospital, Victoria,

29th May, 1893.

THE MONTH.

NEW SOUTH WALES.

The third annual meeting of the Eastern Medical Association of Sydney will be held on October 3. In accordance with the rules, nominations for the various offices will be received by the Hon. Secretary, Dr. G. L. Mullins, Waverley, up to Tuesday, September 19.

The Western and North Sydney Medical Associations gave a very successful "smoke party" at Aaron's Exchange Hotel, Sydney, on Friday evening, August 11. Dr. Coutie, of Petersham, the President of the Western Medical Association, occupied the chair, and there were about 100 gentlemen present. The musical programme, arranged by Drs. Maguire, Mullins, Dagnall Clarke, and P. M. Wood, the Hon. Secretary, consisted of songs, solos and duets on violin and piano, contributed by Mons. Poussard, Drs. Maguire, Laure, Badham, Marano and other gentlemen, and of a clever legerdemain performance by Mr. Meikleham. The "No. 2 Smoke Party" was thoroughly enjoyed by those present, and the wish was expressed that a third edition would soon follow.

Dr. Frances Dick, of Sydney, has left by the R.M.S. "Victoria" for London *en route* to Vienna.

Dr. Fred. W. Hall has commenced practice at 18 College-street, Sydney.

Dr. J. E. Moffitt, late of the Creswick Hospital (Vic.), has been elected one of the Medical Officers of the United Friendly Societies' Dispensary at Balmain (Sydney), at a salary of £300 *per annum*.

Dr. A. Semple, formerly of Quirindi, has succeeded to the practice of Dr. E. L. Hickey at Parkes.

Dr. John Thomson has removed from Silverton to Broken Hill.

Lt.-Col. Brigade-Surgeon W. D. C. Williams, of Sydney, has been awarded the Certificate of Merit of the Royal Humane Society of Australasia for having rescued a young man from drowning in the ocean beach at Manly.

Dr. E. Yeates has returned from his trip to England, and resumed practice at West Maitland.

NEW ZEALAND.

Mr. George St. George died at New Plymouth on August 1. He was the oldest medical practitioner in Taranaki, having arrived at New Plymouth with the pioneers in the ship "Amelia Thompson" many years ago.

Mr. Richard Sissons, M.R.C.S. Eng. *et* L.S.A. Lond. 1842, Public Vaccinator for the Whangarei district, died at Kamo (Prov. Auckland) last month, aged 74 years.

Dr. J. Craig has removed from Geraldine (Canterbury) to Ross (Westland).

QUEENSLAND.

The new cottage hospital at Longreach is now completed; Dr. A. E. Hewer is the Medical Officer.

Drs. H. C. Garde and **E. L. Luther**, of Maryborough, have been awarded the Certificate of Merit of the Royal Humane Society of Australasia for having rescued a man from drowning in Sussex-street, Maryborough, during the late floods.

Dr. A. Jack has returned from his trip to the old country, and resumed his practice at Montalbion.

Dr. C. J. H. Wray, Health Officer at Brisbane, has been appointed Government Medical Officer, and also Visiting Surgeon to the prisons at Brisbane and Fortitude Valley, in the place of Dr. Tilston.

SOUTH AUSTRALIA.

Mr. James Westwood Leitch, M.B. *et* Ch.M. Edin. 1889, a native of the colony, formerly of Kadina, died at Orroroo from phthisis on August 21 at the early age of 26.

Dr. E. Brookes has been appointed Visiting Medical Officer of the Yatala Labour Prison, in the place of Dr. Nesbitt, resigned.

Dr. T. K. Fulton, late of South Yarra (Melbourne), is now practising at Wallaroo.

Dr. F. J. Hall has settled at Strathalbyn.

VICTORIA.

The Council of the Melbourne University have endorsed the opinion of the Faculty of Medicine in favour of a proposal that the Lecturers in Medicine and Surgery at the University should be *ex officio* Physicians and Surgeons at the Melbourne Hospital.

At the end of 1892 there were 3,958 insane persons in Victoria, being an increase of 87 on the previous year. Of these, 2,137 were males and 1,821 females.

Dr. J. R. Hutton, late Resident Surgeon at the Castlemaine Hospital, and Dr. O'Neill, of Maldon, have been appointed Honorary Surgeons of the Castlemaine Hospital, Drs. Dobbin. Reid and Woolley, all of Castlemaine, having declined the proffered honour.

Dr. W. J. Long has resigned his position as Resident Surgeon of the Midwifery Department at the Melbourne Women's Hospital.

Dr. Sawrey has been appointed Resident Surgeon for the Midwifery Department at the Melbourne Women's Hospital.

Dr. T. A. Wilson has been appointed Assistant Medical Officer to the Midwifery Department of the Melbourne Women's Hospital.

WESTERN AUSTRALIA.

Dr. G. H. Bartlett has been appointed Resident Medical Officer of the Irwin district, and Quarantine Officer for the port of Dongara.

Dr. L. M. Hungerford has removed from Dongara to Vasse.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Scott, Robert, L.R.C.P. Edin. 1891; L.R.C.S. Edin. 1891; L.F.P.S. Glasg. 1891.
Sweet, Geoffrey Bruton, M.B. *et* M.S. Sydney 1893.

NEW ZEALAND.

Thomson, Alexander Milne, M.B. *et* Ch. M. Edin.
Burns, Thomas, L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glas.

SOUTH AUSTRALIA.

Clarkson, Charles Howard, L.R.C.P. *et* R C.S. Edin. 1864.

TASMANIA.

Abbott, Thomas Eastoe, L.S.A. Lond. 1880.

VICTORIA.

Hughes, Wilfred Kent, M.R.C.S. Eng. 1890; L.R.C.P. Lond. 1890; M.B. Lond. 1892.
Fairlie, James Daniel Brown, M.R C.S. Eng. 1888; L.R.C.P. Lond. 1888; M.D. Brussels 1893.

Additional Qualifications Registered:—

Murphy, William Patrick, Ch. B. Melb. 1885.
O'Hara, Elizabeth Alice Maude, Ch. B. Melb. 1893.

WESTERN AUSTRALIA.

Bartlett, George Hill, M.B. *et* Ch. M. Edin. 1890.
Hope, William Waugh, M.B. 1890; Ch. B. 1891 Melb.

MEDICAL APPOINTMENTS.

Brittin, Frederick George Morris. M.R.C.S.E., to be an additional Public Vaccinator for the district of Christchurch, N.Z.

Craig, John, L.R.C.S.I., to be a Public Vaccinator for the district of Ross; N.Z.

Gabriel, Charles Louis, L.R.C.P. *et* S. Ed., to be Government Medical Officer and Vaccinator for the district of Gundagai, N.S.W.

Hall, Francis James, M.B. *et* Ch. M. Ed, to be a Public Vaccinator for Strathalbyn, S.A.

Wellford, Francis, M.B., B.S. Camb., to be Government Medical Officer at Winton, Q.

DR. VANZETTI'S ART UNION.

The following additional tickets have been taken up since August 4:—No. 76, Dr. Casperson; 351 and 569, Dr. Morris; 295, Dr. McIlroy; 243, Dr. Kelty; 90, Dr. Codrington; 202, Dr. Hester; 301 and 98, Dr. Macky; 348 and 570, Dr. A. B. Morgan; 319, Dr. Mallam; 149 and 573, Dr. Faithfull; 10 and 574, Dr. Ashwell; 426, Dr. A. Ross; 224, Dr. Jefferies; 13, Dr. Baker; 262, Dr. Lawson; 110, Dr. Cribb; 464, Dr. R. F. Sinclair; 542, Dr. J. H. Wilson; 468, Dr. V. A. J. Smith; 144, Dr. English; 158, Dr. Florance; 254, Dr. Korff; 554 and 575, Dr. H. C. T. Young; 544, Dr. P. M. Wood; 305, Dr. McLoughlin; 44, Dr. Bloch; 236, Dr. Kearney.

⁂ The total number of tickets disposed of is 136 at 10s. 6d.=£71 8s., less £6 6s. 10d. expenses (picture frames, printing of circulars and tickets, postage, bank collection, and stationery), leaving a net balance of £65 1s. 2d. for the benefit of Dr. Vanzetti, who will leave Sydney for Italy in a few days. The drawing took place on September 1, the winning numbers being:

1. No. 533, Dr. Westrum, Nyngan.
2. No. 305, Dr. McLoughlin, Burwood.
3. No. 492, Dr. W. Brown, Parramatta.

REPORTED MORTALITY FOR THE MONTH OF JULY, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. Wales.																
Sydney	111,244	298	179	60	...	9	4	...	...	2	29	19	16	3	1	1
Suburbs	275,615	902	333	123	...	12	14	...	2	4	28	34	18	21	2	7
New Zealand.																
Auckland	31,268	81	29	9	4	...	1	...	...	1	3	2	3	1	...	...
Christchurch	16,704	27	18	9	4	...	...	1	...	...	...	1	...	...	...	...
Dunedin	23,302	43	34	14	4	...	...	1	...	...	4	7	1	...	...	...
Wellington	33,786	72	48	15	13	...	1	...	...	1	3	7	2	2	...	...
Queensland.																
Brisbane	56,075	158	71	26	...	1	12	1	1	2	9	15	7	2	...	2
Suburbs	37,582	95	27	14												
South Australia	336,209	966	332	105	...	1	14	1	3	6	27	52	27	9	...	6
Adelaide	39,073	114	80	14	...	...	2	...	...	...	10	13	8	3	...	2
Tasmania.																
Hobart	34,535	102	58	38	...	...	1	...	...	...	3	4	8	4	...	...
Launceston	22,240	74	35	20	...	...	...	...	1	...	1	6	4	3	...	1
Country Districts	97,793	254	81	...	...	...	4	1	...	1	1	...	...	...	...	...
Victoria.																
Melbourne	71,881	131	116	415	186	6	5	2	3	8	68	137	56	25	...	9
Suburbs	417,304	1,211	707													
Western Australia*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR JULY, 1893.

Stations.	Thermometer.				Mean Height of Barometer.	Rain.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. ; Long. 138° 36′ E.	...	63·6	51·2	35·7	29·949	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	64·	53·5	39·	...	5·34	25	80	...
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	77·9	57·3	39·3	30·079	1·80	10	75	...
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	65·4	45·3	29·4	...	2·55	11	78	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	60·	42·7	33·	...	4·37	17	78	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	58·	47·	34·	29·949	4·34	22	80	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	60·	47·	29·	29·961	3·44	15	82	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	60·	48·3	31·	29·926	2·32	17	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	...	...	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	71·2	52·8	38·7	30·116	4·45	15	81	...
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° 47′ 25″ E.	...	60·	49·7	35·	...	7·31	18	79	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

A SERIES OF CASES OF DISEASES OF THE NERVOUS SYSTEM.

By Thos. Bain Whitton, M.D., Q.U.I., &c., of Reefton, N.Z.

◆

No. VII.—Six Cases of Myelitis.

Inflammation of the spinal cord is seldom fully recovered from, and the functional power is always damaged. The acute form, which occurs rapidly; the chronic form, which passes into spastic paraplegia, and polio-myelitis, in which the grey matter only is affected, are the chief varieties. It is transverse when the whole thickness of the cord is inflamed; focal when one small area, and disseminated when several foci are affected.

The chief causes of myelitis are spinal concussion; injuries of all kinds to the spinal cord; exposure to cold; over-exertion; certain acute blood states, like rheumatism or puerperal diseases, &c.; chronic blood states, like syphilis, alcoholism and gout.

In acute myelitis there are the usual constitutional symptoms of inflammation, increased temperature, rigors, malaise, &c.; then motor paralysis comes on, quickly or gradually, according to the intensity of the attack, and its distribution depends upon the site and extent of the disease, the dorsal region being most frequent; when cervical, both legs and arms are paralyzed. Loss of sensation also accompanies the loss of motor power, the most frequent symptom being "girdle pain," generally felt between the umbilicus and the ensiform cartilage. As paraplegia of the lower extremities arises, wherever the myelitis is situated, from interruption of the lateral pyramidal tract, so disturbance of sensibility arises from affection of the posterior columns. The height of the myelitis in the cord can often be determined by the line of cutaneous sensibility, for when the lumbar region is affected the line of anæsthesia reaches to the umbilicus—to about the end of the sternum in the lower dorsal—whilst in the upper dorsal it will extend as far up as the axillæ. The state of the reflexes of course depend upon the site of the inflammation: in the lumbar variety all reflex action is lost, but in the cervical it is increased in the legs and lost in the arms. A difficulty in micturition is the earliest and most important symptom in this disease, retention, afterwards incontinence, and finally cystitis take place; the sphincter ani is also affected. The most frequent trophic disturbance are bed sores over the sacrum, glutei or heels. In cases of recovery, sensory power always returns before the motor.

Chronic myelitis may develop slowly as such, or may follow as a sequel to the acute form. At first a slight weakness is felt in one or both legs; a feeling of tiredness on walking; then the legs commence to drag. This may progress to complete paralysis. The arms may be affected in the same manner, or one arm and leg, or even one arm alone. There is also a loss of sensory power accompanying or following the motor paralysis, such as numbness, formication or a woolly feeling in the extremities, and nearly always a girdle pain, the presence of the latter symptom distinguishing myelitis from lateral sclerosis.

Case I.

Acute unilateral myelitis of the cervical and upper dorsal region of the left side; motor paralysis of left arm and leg; anæsthesia of both legs; terminating in chronic monoplegia of left arm.

X. O. X., a strong, active man; single; aged 63 years; who was a sailor in his youth, and latterly was greatly addicted to alcohol. His family history is good; no trace of nervous diseases. He had never been ill before this attack, and no specific history related.

In October, 1889, this man laid out all night whilst drunk, which produced an attack of acute bronchitis. During the next day he complained of his left arm and leg feeling numb and tingling with pain in the dorsal region of the spine. He laid on his back unable to turn or raise himself in bed. The temperature ranged from 99° to 101°; the pulse 100 to 120 per minute. On the third day of his illness he noticed that he passed the urine unconsciously under him, and as his cerebral powers were unimpaired, he felt a pain around his axilla like a cord. There was also loss of sensory power over both the lower extremities and over the left arm. On the fifth day of the illness there was complete loss of motor power of the left side; inability to move either hand or foot, whilst that of the right side was normal. The paralysis was present for four days, when slight movements of the flexor muscles of the foot first occurred; later the fingers could be extended; sensation returned as well, but more quickly than motion. The superficial and deep reflexes on both sides were lost during this stage of the illness; but with the return of motion the knee-jerk increased and then became excessive. Ankle clonus was never present. It was noticed that the pupil of the left eye became fully dilated when motor paralysis set in. There was a commencing cataract in the same eye, which obstructed vision except through the lower half of the pupil. The iris never contracted again, as it remained permanently dilated. The muscles of the left arm and leg never became flaccid, keeping firm and hard. No bed sores formed, as he was not allowed to lie constantly on his back, which was supported by a board, and he was frequently turned on either side. The urine never became purulent nor ammoniacal, and when the reflexes returned the incontinence passed away, recourse to catheterism not being required.

The treatment at first was directed to the bronchitis, such as poulticing the chest, with a diaphoretic and expectorant mixture, to which 10 minims of tinct. belladonna was added, given every three hours when the myelitis was suspected.

On the twelfth day of illness he was able to flex the left leg upon the thigh, whilst sensation returned in the forearm, in which there is a daily injection of five minims of liq. strych. Antipyrin in 10 grain doses relieved a nocturnal headache; it was not caused by the strychnine. The interrupted current was daily applied to the arm and leg on the twentieth day of the illness, and continued for a month in conjunction with the strychnine injection.

November 6 (36th day).—He is sitting in a chair; the muscles of the left lower extremity have regained their motor power, but with both knee-jerks increased. Sensation was fully restored by the third week; but the extensors of the forearm, as well as the deltoid and biceps muscles, are weak, and there is a contraction of the elbow joint—no tendency to atrophy, those muscles being hard and firm and possessed of complete electrical traction. By the end of November he could walk with the aid of a stick, and was able to dress himself, the disease having now passed into the chronic form, chronic hemiplegia with a spastic tendency. During his illness a bronchitic cough proved very annoying; he obtained considerable relief from it by the use of tinct. benzoin co. and tinct. laracis, but this mixture was the most useful:—

℞ Terebene ʒii
Aq. Lauro. Cerasi ℥i
Liq. Morphinæ ʒi
Vin. Ipecac. ℥i
Muc. Tragac. ℥vi—cap. ℥ss. ter die.

Case II.

This is also an acute unilateral right-sided myelitis of the cervical and upper dorsal region.

A young woman, aged 23 years, was confined of her first child seven days previous to my visiting her. I was not in attendance. The nurse told me that it was both an easy and quick delivery, and that the placenta was fully expelled. She was quite well until the eighth day after the confinement, when she felt chilly and complained of her right arm and leg feeling numb and pricking, also of cramps in the calf muscles of the right leg. She was sleeping in a newly-built weatherboard cottage, the lining of which was unfinished, and possibly the cold air blowing over the exposed spine during sleep induced the myelitis. During the day and that night she suffered from urinary incontinence, and on the morning of the second day of her illness she was unable to move either extremities of the right side; there was loss of both superficial and deep reflexes and anæsthesia of both sides, extending up to the axillæ. Where the anæsthesia terminated, a girdle pain was felt, but no back pain nor muscular spasms; the temperature never exceeded 100°, the pulse varied from 90 to 110, whilst the mental powers were unimpaired. Both pupils were undilated, with the iris reflex normal. As her parents, both strong and healthy, were living in the town, a full family history was obtained. She from her childhood had always been healthy, and had never received a fall or injury and never had rheumatic fever nor any illness.

The treatment, at first, consisted in applying mustard poultices in succession over the spine from the neck to the sacrum, and in giving ♏x of tinct. bellad. and ♏xx of liq. ext. ergotæ every four hours. The child was removed from the breast and hand fed, whilst the mother was made to lie on each side, having a support to her back which prevented the formation of bed sores, and the paralysed limbs were wrapped in cotton wool. Sensory power returned in the lower limbs on the fifth day of illness, extending as far as the lumbar region; there was a return of the plantar and patellar reflexes and motor power of the flexor muscles of the right leg, a slight return of sensation also in the right arm, but no motion as yet; the girdle pain and the urinary incontinence have both passed away. On the following day sensation was felt over the body; she was able to flex the right leg and thigh upon the abdomen, to flex the right hand and partially adduct the humerus. Within ten days of the attack she had regained full power of the lower limb, being able to walk about without any aid; the knee-jerk increased, and later on she had extensor spasm of the right leg. At this stage she was given ten grains of pot. iod. ter die; continued for three months; the faradic current was applied to the spine and affected muscles daily for two months. Muscular atrophy was never present, but it was six months before she regained full grasping power of the right hand. A slight contracture of the elbow joint also occurred, which did not pass away for a year, by which time she was as well as ever. The next confinement was very favourable, no sequelæ and no return of myelitis. After this, having left the district, she passed from my observation.

Case III.—Chronic Disseminated Unilateral Myelitis from Over-exertion.

This was a man aged 42, unmarried, of a very sober, active, and somewhat miserly disposition, who for some years was engaged in "trucking" at a quartz mine. He related the following account of himself before entering the Reefton Hospital, March 1888. He had been a farm labourer in Ireland, for 20 years he was mining in Australia, and during the last four of those he was constantly at the same work. He never had any crush or injury, no illness and no specific history; the family history is devoid of insanity or nervous disease. About a year ago he commenced to feel tired before his eight-hour "shift" was up; he experienced a dull pain in his back and right leg, and a numb, tingling sensation in the sole of the right foot, also a girdle pain around the umbilicus, which he considered was rheumatic, and for which he applied the usual "strengthening plaster." Then he found that he could not walk so well with the right leg, and he felt that the grasping power of his right hand was becoming weaker; he also noticed that he took a longer time over passing his urine—there was neither incontinence nor retention—and that he was obstinately constipated. He had to give up work finally, since he could not walk without the aid of a stick; he felt as if wool was under his right foot; "he could not feel the ground," as he expressed it, and came under my care.

On examination both heart and lungs were normal; none of the vertebræ were painful on using the hot sponge test; the knee-jerk is increased on the right side, with clonus when the foot is raised; extensor spasm and spastic paretic gait; there is anæsthesia of the plantar surface, posterior surface of the leg and thigh of the right side; the girdle pain is still present, but not so acute as formerly; micturition is tedious, but there is neither stone, stricture, nor prostatic enlargement. The right thigh measures half an inch less in circumference than the left one, the glutei, posterior thigh and calf muscles of this side are flabby, but all of them react to the faradic current. In the right arm the motor power of the flexor muscles is diminished, the other muscles are normal; there is anæsthesia of the hand, fingers, and forearm, with formication over the outer side of the arm, extending to the shoulder; this feeling worried him more than the paralysis—he was constantly rubbing his arm with a liniment of some kind or other; there was never any cerebral disturbance or mental impairment.

The following is an outline of the treatment adopted. In all cases of chronic nervous diseases, whether the patient acknowledges or not to a specific history, I put him for a month on pot. iod. and ammon. carb., commencing with 10 grains ter die and gradually increasing it to 30 grains. No improvement followed from the use of this medicine, nor from the hot baths which he had three times a week. A temporary improvement followed the application of the faradic current, especially in regard to the anæsthesia and formication of the right forearm, which disappeared for two or three hours after its use, and in a feeling of increased power in the muscles of the thigh and leg. The negative pole was applied along the course of the spine whilst the feet were resting on a copper plate, to which the positive pole was attached; he had a daily sitting of 20 minutes for a period of six weeks. During this time he was taking ♏20 of liq. hydrarg. perch. and ♏20 of liq. Donovan. ter die, under which treatment he certainly improved, as he now could walk half a mile with the aid of a stick without feeling tired, which he could not do before. The current was now discontinued, when a succession of small blisters were applied along the spine, and argent. nitrate in gr.$\frac{1}{12}$ doses was given, increased to gr.1 ter die, for nearly two months. He had now gained 12lb. in weight, the difference in circumference between both thighs was less than a quarter of an inch, and motor power in each of the extremities greatly increased. The faradic current was resumed again, and one drachm of Easton's syrup added to each dose of the argent. nitrate, but he began to wish for a change, as is invariably the way with such chronic cases, and he went to the sulphur baths at Rotorua. After a three months' course there of the baths, he informed me that he could walk without a stick, and that the formication and tingling was lost, whilst the motor weakness in the hand and arm was nearly gone. He never returned, and I had no more information from him.

Case IV.—Acute Disseminated Myelitis following Spinal Concussion—Death on the Sixth Day.

A. B. C., a strong, healthy man, with no previous history of disease, a farmer, aged 42 and married, was riding after cattle one day in January, 1885, when his horse, stumbling, threw him on his back. He got up and rode home; there was no vomiting, but he felt shaken, and kept to the house for a few days, after which he went about his work again, only complaining of occasional giddiness. He was now engaged in draining some swamp land, working in water over his ankles. One day he felt his feet and legs very numb and cold, with lumbar pain, lassitude, anorexia, and rigors; he thought he had a severe cold. During the night of February 5 he could not pass any water; he found both the lower limbs powerless, with a severe pain around the body above the umbilicus. When I saw him for the first time next morning, he complained of a difficulty in breathing from the girdle pain, which he said was travelling up his body. There was a total loss of both motor and sensory power as far as the seventh rib, but no spinal tenderness; the mental powers were dull and confused; temperature 100° and pulse 110. About a pint of dark brown urine, with a strong ammoniacal odour, was withdrawn with a soft catheter; his face was much flushed; there was a red erythematous patch over the sacrum, whilst the skin was uniformly dry; all the reflexes were abolished except the iris reflex, and it was sluggish. He was put on milk diet and to drink barley water freely, and

℞ Sodæ Salicylate ʒss
Tk. Hyosc. ʒi
Inf. Buchu ʒvi—cap. ʒii sec. horis.

February 6.—He was drowsy all night; temperature is 101°; pulse 120, full and bounding; skin all over the body of a bright red colour; the legs were extended and the feet everted, with the muscles flabby. The urine was again withdrawn; mustard poultices were applied along the dorsal region; he was turned on the side for some hours, as the skin over the sacrum was dark red, but unbroken; he is very thirsty; the tongue is thickly coated with fur and the breath is very offensive. To-day the arms are unaffected.

February 7.—The myelitis has extended to the cervical region, since both arms are powerless; he does not complain so much of the girdle pain, but this may be from his semi-comatose condition; both the pulse and temperature are rising, the former is 130 and the latter is 102·5°; the urine is dribbling away and very ammoniacal.

February 8.—This morning a grain of pilocarpine was injected, which caused profuse perspiration; the temperature fell to 101° and the pulse to 120 by noon, but both rose again during the evening.

February 9.—The tongue is dry and brown. He was given an injection of gr.1½ of pilocarpine, but he is unable to swallow; there is a total paralysis of the upper and lower extremities, with a temperature of 104° and pulse 148. He is comatose and dying. Death took place next morning, when the temperature reached 106·5° and the pulse uncountable, from respiratory paralysis and fresh foci of myelitis having extended into the medulla. It was impossible to obtain a necropsy in this case.

Case V.—Transverse Lumbar Myelitis caused by Gout and Alcoholism—Death from Acute Bed Sore and Cystitis.

E. T. G., a publican, aged 65, who had a gouty family history, and who led the usual rough-and-tumble life of the early colonial days, was under my care for over seven years, suffering from gouty peripheral neuritis of both legs and perforating ulcers of both big toes. There was also gouty arthritis of several fingers. He was frequently laid up in bed, either on account of the neuritis or the perforating ulcers. The latter would heal up for some months, only to break out again. He would not forswear his daily nips of brandy—beer he did not drink. Cramps, muscular spasms and twitchings of the muscles of his legs, with sensory disturbance, were of common occurrence for years past, due to the neuritis, but he had always been able to get about with the help of a stick, until one morning, when he was unable to move his lower extremities or sit up in bed. There was also retention of urine, requiring the use of the catheter; anæsthesia and a girdle pain around the body below the umbilicus—so severe and so constant was it as to require the daily hypodermic injection of half-a-grain of morphine. Both the plantar and patellar reflexes were absent. Temperature never rose above 101°, whilst the pulse was 110. The mental faculties were unimpaired, and the upper extremities possessed complete motor and sensory power.

On the third day of illness trophic disturbance of the skin over the sacrum appeared in the form of a large erythematous patch, and notwithstanding constant attention to his position and frequent washing with spts. vin. rect. and carbolic lotion, a bed sore quickly formed, sloughed rapidly, and stunk abominably. Before death two or three inches of the sacrum were exposed. The patient was given stimulants freely. Morphine was the only drug used, but no counter irritation was applied to the spine. Cystitis appeared on the fifth day, when the urine rapidly became ammoniacal and purulent. The tongue became dry and brown, with low muttering delirium on the tenth day. He was now kept on the left side to relieve pressure on the sacrum as much as possible. Finally, on the thirteenth day of the myelitis, he became comatose, and died from exhaustion produced by the acute bed sore and cystitis.

Case VI.—Hæmorrhagic Myelitis from Dislocation of the Tenth Dorsal Vertebra—Death from Acute Bed Sore and Cystitis.

S. T. U., a strong, healthy man, aged 37, was engaged one day breaking down quartz in a drive. He was in a stooping posture when a fall of rock struck him on the back and buried him up. After his mates had extricated him he found that he could not move his lower extremities, which were paralyzed. There was intense pain over the lower dorsal region, otherwise he was uninjured. On removal to the hospital, it was found that the tenth dorsal vertebra was dislocated inwards for about an inch, with a fracture of one of its lamina. Any movement of, or pressure on, this portion of the spine caused intense pain.

He was at once placed upon a fracture bed, the lower end of which was raised six inches, and a weight of seven pounds was attached to each of his legs by means of a pulley. This extension gave immediate relief to the dorsal pain. There was a total loss of motor power, loss of the reflexes, and loss of sensation of the lower extremities reaching up to the level of the tenth dorsal vertebra and encircling the body; no definite girdle pain was felt, but a zone of hyperæsthesia was above the dislocation. Retention of urine required the daily use of the catheter and the washing out of the bladder with a solution of warm boric acid. There was also fæcal incontinence. The temperature fluctuated from 99° to 101°, the pulse keeping about 110. During the first week the tongue was clean, and he was in possession of a good appetite; and as that portion of his body above the injury was normal, he could not realize that death was probable. Within a week from the injury, trophic disturbance of the skin appeared in the form of a large erythematous patch over the sacrum. Bullæ quickly formed on it, which rapidly developed into an acute bed sore. The skin over the lower limbs became glossy, distended and œdematous. It was impossible for him to lie on his side or the prone position, as the pain then became very acute. The easiest position was the dorsal. The sore was washed frequently with warm Condy's fluid, and a large pad of oakum, sprinkled with liq. carbonis deterg., kept on it, which to some extent subdued the offensive odour. Death occurred 16 days after the injury from exhaustion due to the bed sore and the cystitis.

A *post-mortem* examination disclosed a simple fracture of the left lamina and an inward displacement of the body of the tenth vertebra, which both flattened and compressed the cord. The dura mater was unruptured, but when opened its inner surface was found to be covered with a thin layer of clotted blood. There was also some blood under the arachnoid, whilst in the centre of the grey matter was a clot as large as a small bean, which had destroyed all the nerve structures around it. Sections of the cord above and below this clot were red and swollen, so that the white and grey matter became indistinct.

On microscopic examination, the blood vessels were greatly dilated, and surrounded with leucocytes; the fibres were broken up; the nerve cells swollen and granular, with some oil globules around them, and the axis cylinders swollen.

THE ARTIFICIAL FEEDING OF INFANTS.

Read before the Newcastle Medical Society.

By Wilfrid Nickson, M.D. Newcastle, N.S.W.

As our president (Dr. Treloar) will contribute a paper this evening on Infantile Feeding, dealing, however, more particularly with the natural form of nourishment (mother's milk), selection of wet nurses, and the method and difficulty of weaning, I will briefly define the boundaries within which I have as far as possible kept.

1. My remarks strictly apply to feeding in health.

2. I have only considered those cases where we are compelled to resort to artificial feeding entirely, and are unable to obtain the services of a wet nurse.

3. I have viewed the matter from the standpoint of a general practitioner dealing with the average class of patients, so I have not set up a pretty or ideal standard, whose chief fault is that it is useless outside the walls of a children's hospital, or at least requires a skilled nurse to carry out its details in perfection. In our ordinary duties one of the most troublesome problems we are constantly called upon to solve is, in the absence of the natural nourishment, to satisfactorily feed infants during the first few months of independent existence; and these cases seem ever on the increase, for with the daily tendency of the population to crowd together into towns, and the consequent enervating effects of city life, the mammary gland, in common with the other organs concerned in the perpetuation of our species, appear to lose their vigour. In the agricultural districts of Ireland, where I had the opportunity of observing a people who lived a healthy country life, nature's supply never failed; the mammary glands were well developed, and had not the unpleasant tendency of ceasing to act at any inopportune moment. Situated as we are in a land fertile, as all know, in diseases of the special organs of the

female sex, we are compelled to use our ingenuity in endeavouring on many occasions either to augment nature's fountain by added nourishment, or to entirely substitute artificial feeding. This difficulty is partly due to the very erroneous views usually held as to the powers of the digestive organs of infants, and also to the host of amateur medicos who are much in evidence in these cases. There are, without a doubt, many babies who seem enabled to derive nourishment from any kind of food, and upset all your prognostications as to coming gastric disturbances; but the moiety of our coming race, whose digestive tracts decline to be treated as a rubbish shoot, demand protection and require foods that are readily assimilated and suitable for building up the tissues.

Without a doubt mother's milk is the typical food for an infant, but we must remember that a woman may secrete large quantities of lactial fluid of a very poor quality, and from which a child fails to extract sufficient nourishment, so that even when there seems to be abundance of milk secreted we may find the baby puny, peevish, and restless, troubled with dyspepsia and constantly wanting the breast, and after a drink will not settle down to the accustomed sleep. Most probably a case of this kind will be promptly relieved by a careful regulation of the maternal diet, with partly additional feeding of the infant.

As our standard food must be mothers' milk, let me refresh your memory as to the normal composition of that fluid. The following description I have taken from Dr. Louis Starr on "Digestive Diseases in Children."

"Breast milk should be opaque and dull white in colour; alkaline in reaction; under the microscope should show a number of medium-sized fat globules; its specific gravity should be 1032, and is composed of

Water	889·08	parts.
Sugar	43·64	„
Casein	39·24	„
Butter	26·66	„
Salts	1·38	„

To replace this we have the following choice:—

1. The fresh milk of domestic animals, viz., cow, goat, ass, and sheep. The first two are the ones we have most to concern ourselves with.
2. Condensed milk.
3. Foods made from the cereals.
4. Animal broths.

These are the substitutes we have to offer in the event of the want of breast milk; and we have to consider now how each of these differ from our standard, and how by careful preparation and administration they can be offered in the least objectionable form.

First of all, we must remember that in infancy growth proceeds quickly. Every portion of the body is being rapidly built up; the liver is relatively larger than in adolescence, and the amount of material manufactured great. For certainly the first few months of existence the salivary ferment is either very feeble or absent, and the same holds good for the pancreatic secretion, as starch is converted into soluble sugar by the action of these two ferments. We see that all carbo-hydrates must be presented in a soluble form, and cereals must therefore undergo special treatment to render them acceptable to the digestive organs. For the purpose of sustaining life and building up the tissues, an infant requires to be supplied with soluble carbo-hydrates or starches, albuminoids, fats, salts and water.

Cows' milk is about the first food to suggest itself, being easy to obtain. It has the following points of difference when compared with mothers' milk:—Its specific gravity is slightly higher; it is either neutral or slightly acid in reaction, and contains less sugar—and what is more important, the casein has the disadvantage of running together in a firm hard clot, which all of us are doubtless familiar with—fruitful cause as it is of many gastro-intestinal disorders.

In practice we find a difficulty in getting anything like a standard fluid. The breed of the cow and the food given to it, both exert a marked influence on its composition. Many diseases, notably tuberculosis, enteric fever and scarlet fever, can be contracted through the medium of the milk supply. Still, despite the above objections to its use, cows' milk is the best substitute for human milk, and where due care is taken, most of the above drawbacks can be overcome.

In the first place, we must select a milkman in whom we have confidence, and whose premises we know are clean and well-appointed, and removed from all like sources of contamination. If possible the milk should be that of a cow recently calved, and the feeding of which should be so regulated that the quality, and not the quantity, of the milk be the object in view. Of the above conditions the least important, in my opinion, is the obtaining milk from one cow; and unless I am very certain of the source, I never make it a binding condition. The fluid resulting from several cows of mixed breeds, who have the run of a good pasture, varies very little in quality. Two deliveries during the day must be arranged for, and for transit we must have special vessels. On arrival the whole supply should either be sterilized or partly sterilized by being boiled. This treatment makes it less perfectly digestible; still it is preferable to having milk swarming with microbes, so that of two evils we choose the lesser.

Pending use, it must be kept in a cool place—if possible in a refrigerator—and well removed from all likely sources of contagion. All vessels must be kept scrupulously clean. Scalding with boiling water should be carried out immediately before use. The pan used for boiling should be china-lined, and must strictly be kept for that purpose only. It is usually a wise plan for one member of the household to undertake the care of the necessary utensils, and all details should be put in writing for her guidance. Before giving it to an infant, certain alterations must be made in the composition of cows' milk. First, it requires to be diluted; secondly, some sweetening is required—sugar (cane), sugar of milk, saccharin, glycerine, or best of all, malt extract may be used; if acid, the addition of an alkali is required. The tendency of the casein to coagulate can be overcome either chemically, by adding an alkali, or mechanically, by the addition of some mucilaginous fluid, thus preventing the particles running together. The latter is the method I always adopt, and the fluid used, barley water. Barley water may be made from either malting or pearl barley. Some advantages are claimed for the former, but I do not think they compensate for the facts that at times it is difficult to obtain, and its preparation is tedious. No golden rule can be laid down as to the amount of food a baby will take, or how often it will require it. So far I have never seen a standard baby. They all differ one from another, and each one has some little peculiarity, and close observation of every case will alone give the key.

I generally recommend the milk to be diluted with twice its bulk of barley water and sweetened as mentioned above, and given every two hours at first. The course of events must now be watched. If the baby is thriving and contented, let well alone; on the other hand, the quantity or quality of the food may require to be altered, or a complete change made.

Goats' milk resembles that of the cow, being richer in solids and fats, and it has the advantage that its curd tends to coagulate in a more flocculent mass. As many people can keep a goat, and its feeding can be regulated, and no risks run in having milk brought long distances, goats' milk has much in its favour as a staple substitute for mothers' milk.

I have had no experience of the milk of the ewe or ass, so cannot deal with them.

Condensed milk is made by evaporating down fresh milk to about one-third of its volume. Some sugar is generally added. As a rule, it is deficient in fats, but this drawback does not occur in the best brands.

Condensed milk is rather a favourite food, and in many cases gives satisfaction; but, personally, I have noticed that children fed exclusively on the food seem to lack stamina, and though perhaps healthy-looking are soft and flabby, and are very prone to attacks of gastro-intestinal catarrh. Condensed milk owes much of its popularity to the fact that owing to careless preparation cows' milk often disagrees, and also that while every nurse knows that condensed milk must be freely diluted, there are comparatively few who do not use cows' milk in much too concentrated a form. Condensed milk is a useful alternative to fall back on when other milk cannot be procured; but as a staple article of diet its food value does not equal properly-prepared fresh milk.

Before the manufacturing chemist inundated the market with patent foods, the underlying principle had been solved, namely, to convert the insoluble starch into a soluble form. Of course science has produced a much more perfect article, but still the old-fashioned form of infants' food —"tops and bottoms" and "flour ball"—had gone far on the road to produce a suitable food. The former, as its name implies, is simply the outside of the loaf, where, through the action of the baking process, the proportion of soluble dextrine is greater than in the interior of the loaf. The "flour ball" is made by tying a handful of flour in a cloth and boiling it for about 12 hours. On scraping away the outside paste a hard ball occupies the centre. This largely consists of soluble dextrine; grated down it yields a fine powder. This used in the proportion of one teaspoonful for each meal, blended in milk and barley water, with a little extract of malt added, makes an excellent food, and is particularly useful where there is a tendency to chronic diarrhœa.

The underlying principle of the numerous artificial foods advertised is practically that of the flour ball, namely, to carry the baking process to such an extent that most, if not all, the starch is converted into dextrine. Malt in some form is present in most of them, thus taking advantage of the diastatic ferment, and carrying on the natural process of transforming dextrine into grape sugar; some have the addition of desiccated milk. They all contain sufficient carbo-hydrates, but lack fats and albuminoids, and are, therefore, chiefly valuable as adjuncts to milk in some form, but certainly not permanently to replace it.

In selecting our brand we cannot complain of want of choice, as their name is legion; and those coming from first-class firms are, I believe, faithfully prepared. With each packet some idea of the contents is given.

Personally, I have found little difference between them; and sometimes X's food will disagree, and the child takes readily to Y's, while perhaps in a day or two the converse will hold good.

When you start to feed a baby artificially, its organs of taste appear to become developed. Anyway it commences to have fancies in the food it will take to; and it is usually wise to make an occasional change in the diet, for, as Fothergill aptly remarks, "it is not convenient to change the baby." Full directions are given with all the different foods as to the *modus operandi* to be followed in their preparation. Generally speaking, I have found that it is wiser to commence with rather less than the amounts recommended; we can very easily increase if necessary. As we all know bottle-fed children are very prone to gastric derangements, and in these cases it is often a difficult matter to get a food to agree. Keeping the child on either barley water alone or weak veal or chicken broth for a short period gives the stomach the required rest, and restores tone, and fermentation ceases, and the normal dietary can be resumed in safety.

All the above foods may be pre-digested, but this method of preparing food more properly belongs to diet in disease, and the discussion of that would prolong this paper beyond fair limits.

Water should not be withheld from babies; they are prone to suffer from thirst, and it is really inhuman to withold the substance that will give instant relief. This fact would not deserve being alluded to were it not that most erroneous views are held on this simple matter by a considerable section of the public.

Having thus briefly mentioned some of the more important substitutes for breast milk, let us consider what apparatus is required to convey the food to the digestive canal.

Here is commonly the weak spot in the system of artificial feeding, and it is useless to arrange a careful dietary if the details of administration are not rigidly attended to.

Spoon feeding we need not concern ourselves about, but where bottles are used it is very different.

In selecting a bottle avoid long rubber tubes; to keep such dirt traps clean and aseptic is impossible. The shape matters little, so long as the bottle is made of clear glass and the only rubber about it be the teat, all is well. Three bottles should be kept going, and the teats must be discarded should they become in any way foul; after use the bottle must be carefully washed until every part is thoroughly clean, and then placed in either a weak solution of acid boric. or pot. permang. until required; the rubber portion should receive the same careful toilet.

These directions, simple as they are, are all important and must be impressed on the nurse, for an unclean bottle is one of the greatest menaces in the track of artificial feeding.

I have kept my remarks within a practical limit, and have recommended nothing that would hamper those of our patients who have a small income and to whom the question of expense is a consideration. I have not touched on the amount of food required at various ages, such tables are to be found in any book dealing with infantile feeding; but as the amount of food a child requires varies directly with its constitutional state and its power of assimilation, and cannot be restrained within the exact limits of a dietetic table, these rules are of comparatively little value.

Careful observation will soon give you the required discretion, the infant will quickly let you know if it is getting too much food or too little, and I take it that it is more scientific to judge each case on its merits than to try and keep to an average dietary, anyway until such time as babies are produced that approximate closer to a standard than they do at present.

In conclusion, children artificially fed require constant care and attention; every slight ailment should be promptly attended to, for prevention is better than cure, and any neglect of mild gastro-intestinal disorders is particularly prone to lead to most disastrous results.

ELECTROLYSIS OF NÆVUS.

READ BEFORE THE QUEENSLAND MEDICAL SOCIETY.

BY ÆNEAS J. McDONNELL, M.B. ET CH.M.,
HON. SURGEON TO TOOWOOMBA HOSPITAL.

◆

NOVEMBER 16, 1892.—Female infant, aged six months, was sent to me for operation by Drs. Margetts and Phillips, of Warwick, with the accompanying history:—

Ten days after birth small nævus was noticed on right side of upper lip. Painted with iodine from then to July 18; August 10 growth increased in size, and was deeper; treated with a combination of hyd. perch. and collodion, which formed an eschar, in separation of which no marked diminution of growth was visible. The nævus was then painted with iod. ethylat. repeatedly up to August 28 without improvement. On September 11 growth showed further increase, and was visible in buccal surface of lip. It was then transfixed with two hare-lip pins, and strangulated. On separation of slough marked improvement for awhile, but growth soon reappeared with progressive enlargement.

Present Condition.—Child is well nourished. A swelling is very plainly visible in the lip about the size of a plum stone, about equidistant from either surface. In the external aspect is the scar of former treatment; child is cross and fretful, and with difficulty any examination is made. The same day, under anæsthesia, three platinum, bayonet-pointed, protected needles, connected with the positive pole of the battery, and one steel needle, connected with the negative pole, were passed into the nævus from the buccal side, and a current of 50 milliampères passed for 2½ minutes. The growth swelled up a good deal, becoming hard and tense.

The same evening the change in the child's general condition was most marked. Instead of being cross and peevish, and constantly in her mother's arms, she was bright and lively, and seemed to feel no pain of any description; nævus was swollen and red.

I sent her back to Warwick, to return in a month.

December 14.—Swelling much smaller. The mother says she has been a different child since the operation. This time I used four platinum needles, and a current of 60 milliampères for six minutes. There was slight sloughing at the points of insertion of the needles.

I saw no more of her until March 9, 1893, when on examining I found a small portion remaining—about one-quarter of the original nævus—the rest being replaced by a slight hardening. Again I used four needles and a current of 50 milliampères for four minutes.

I saw her finally in June last, when I found the result most gratifying. The nævus had almost entirely disappeared, a slight thickening being left. This, I hope, will still further absorb. The external scar is much less plainly marked, and indeed is scarcely noticeable.

Remarks.—The treatment of nævus by electrolysis is not so old or well established as to have been firmly grasped by all medical men as a method of cure. The battery and milliampèremetre necessary for success are not in everyone's hands.

I do not intend to touch on the various methods of treating nævi, but merely to show the *rationale* of electrolysis.

In electrolysis of blood a firm, dark, hard clot appears at the positive pole, and a light frothy foam with bubbles of hydrogen at the negative. On testing we find the acids at the positive pole, and the alkalis at the negative.

Althaus tells us that at the negative electrode the potassium and sodium contained in animal tissue are set free, and when nascent seize on oxygen and form caustic potash and soda, setting free hydrogen, which appears as bubbles; and these bubbles act mechanically, inserting themselves between the cells or fibres of the tissue being electrolyzed and accelerate their disintegration, the caustic potash and soda combining with the fatty constituents, forming soap, hence the alkaline reaction. Stevenson tells us also that the chemical composition of some of the cells is altered so as to render them capable of absorption. In these we have the whole gist of the treatment.

The positive pole, which clots the blood *in situ*, is the factor, the negative may be used as I used it, with another needle, or by a pad or sponge on the back of the body; the former method, I think, is preferable, as it renders the action more strictly local, and also brings the peculiar action of the negative pole into play.

Erb, in Von Ziemssen's "Electricity," gives a very simple, yet valuable, test to readily distinguish the positive pole: a strip of blue litmus paper is wetted and touched with both poles, and a current passed, the positive turns the litmus red. This ought to be used always, as it is extremely important to know the poles accurately, the whole success lying in using the right one.

In some text-books we are told to use two, three, or more cells, as the case may be, as if it were possible to accurately give a "dose" of electricity by the number of cells or the length of the sitting; the electro motive force of the cells and their resistance differ from battery to battery, and from time to time in the same battery, and De Watteville tells us that nothing but the deviation of the needle can give any idea as to what is going on in the current. I use a milliampèremeter, Dr. Edelmann's universal, made by Schall, of London, which registers from $\frac{1}{10}$ to 500 milliampères; and with an instrument of this kind one can speak of exact doses of electricity.

Owen, in "Surgical Diseases of Children," speaks very highly of electrolysis, but he states that it is apt to prove tedious; he does not mention the strength of current to be used, merely speaking of the battery. Bryant does not give it a place in his text-book.

To sum up, the advantages of electrolysis are: the after results are painless; there is little or no scar; the growth is placed in such a position that nature steps in and completes the work by absorption; there is no blood lost, and its results are nearly certain, as if used carefully, and yet thoroughly, every particle of nævoid tissue is destroyed or done away with. On the contrary, if under ligature or caustics any portion of the growth be left, it often tends to spread much more rapidly.

The disadvantages are, the treatment extends over some little time; anæsthesia is necessary; an extensive apparatus is required, and a knowledge of the working of the appliances and of the laws of electricity.

I claim that the result of this case is a proof of its value, and its superiority to the older methods of treatment which were tried and failed.

THREE INSTRUCTIVE ABDOMINAL CASES.

By Chas. W. MacCarthy, M.D., F.R.C.S. Irel., Hon. Surgeon (formerly Hon. Physician) St. Vincent's Hospital, Sydney, &c.

Convinced that the publication of cases in practice should be undertaken with the special object of adding to or strengthening medical knowledge, and feeling that, therefore, one should not hesitate to record certain of his unsuccessful or imperfectly diagnosed cases, which are often, in fact, more instructive than brilliant successes, I shall bracket, for brief consideration, the following:—

Case I.

Mrs. M., aged 29; admitted 24th September, 1893, into St. Vincent's Hospital, suffering from severe abdominal pain radiating from the neighbourhood of the cæcum; intensified on pressure; with tensely tympanitic abdomen; mapping of intestines; locked-up bowels; vomiting and collapse—in short, symptoms of intestinal obstruction. These symptoms were described as sudden in their invasion and had already lasted 36 hours. The special cause for such obstruction, with a view to possible operation, engaged our attention at a consultation of portion of the hospital staff. We eliminated in succession, band, volvulus, intussusception, &c., and set it down to some indefinable mischief somewhere in the neighbourhood of the cæcum. I thought I could throw some light on the subject by stating that two years previously I had attended her for a similar attack, from which she recovered in a few days, opium having been administered. I had, however, since lost sight of her. This apparently lent a new aspect to the case, which was rendered more obscure owing to the severe pain and greatly distended abdomen preventing due local examination, mere dulness on percussion only having been detected in the lower part of the abdomen. In view of previous spontaneous recovery, we agreed to delay operation, meanwhile administering opium. Next day the patient felt relieved; vomiting was certainly less frequent; pulse-tension indicated less collapse; and it was still hoped the symptoms would pass off as before. These delays were disastrous. The patient died the following day. The autopsy, made by Dr. C. Maher, physician and pathologist to the hospital, revealing a necrosed unilocular right ovarian cyst about the size of a small football, strangulated by a three-fold twist in its long round thin pedicle, and evidently increased in size by strangulation; necrosed patches also in the ileum close to its termination in the cæcum, and a similar patch on the parietal peritoneum. The tumour contained blood-stained fluid, a small quantity of which had leaked into the abdominal cavity. There were no adhesions of the pedicle to the intestines.

Symptoms of obstruction were evidently due to the following combined causes, viz.: *(a)* Compression of the portion of the ileum against which the tumour was lying, drawn down by its now shortened pedicle; (*b*) reversal of peristalsis, due to the latter cause as well as to inflammatory irritation; and (*c*) the induced intestinal paralysis. In the matter of compression this case is analagous to one recorded by Guenther (*vide* "Cyclopædia of Obstetrics and Gynæcology," vol. viii, page 93), except that in the case mentioned by him the rectum, not the ileum, was compressed. I am not satisfied that in the present instance the mechanical pressure alone was sufficient to cause obstruction of the intestine, the necrosed condition of which was more likely due to contact than to pressure, for a similar condition was found on the parietes where no pressure was exerted. Pressure, however, was no inconsiderable factor in the production of certain of the symptoms.

It is clear that the symptoms manifested two years before were produced by a twist in the pedicle of the young cyst, torsion only partially occluding the arterial supply, but sufficiently so to retard the growth of the cyst.

The case is chiefly of interest from a diagnostic point of view. Given the above symptoms with a knowledge of the presence of an ovarian cyst, and the diagnosis of the cause of obstruction would be sufficiently clear. Having lost sight of the patient for two years, having had no history of tumour, and only seeing the case when a sufficient abdominal examination was impossible, rendered the true diagnosis exceptionally difficult. We only succeeded in correctly localizing the obstruction. It teaches one not to neglect, in any obscure abdominal case of this nature, to include twisted cyst pedicle amongst the possible items for elimination.

As regards operation, had it been undertaken immediately on the woman's admission into hospital there would have been a chance of success, though minimized by the danger of sepsis from the condition of the cyst. At what period, in the present instance, this septic danger first arose, that is to say when exactly the venous engorgement and arterial occlusion (complete as the latter must have been) merged into true necrosis, it is impossible to say. Probably in such instances, on account of less resistance in the structures here, this period arrives much earlier than the 48 hours duration specified by Cohnheim after his experimental strangulation of the ear of a rabbit.

Case II.

January 28, 1893.—Visited Miss B., aged 19, suffering from sudden abdominal pain, vomiting, and symptoms of collapse; bowels not open for three days; were then moved by a severe purgative self-prescribed. Some slight tenderness on pressure in abdomen. No tympanitis. Palpation gave an absolutely negative result. Patient had a similar attack three weeks before and got well without medical aid. Morphia and atropin, hypodermically, reduced pain, but next day collapse had deepened, vomiting still continued, and I sent her into St. Vincent's Hospital with the intention of making an abdominal section. Some time after arrival there the symptoms mitigated somewhat; pain was trivial; collapse less marked; vomiting less severe—it was at no time stercoraceous—and the case showed a better aspect on the whole, which induced a policy of delay—fatal policy! The patient rapidly sank and died two days after admission, *post-mortem* examination revealing a loop of the ileum strangulated by a fibrous band four inches long, attached to the messentery and ileum—to the latter, on the side "furthest from the messentery," by a diverticulum, whose lumen was nearly equal to that of the gut, and which was, evidently, a relic of the omphalo-mesenteric duct, an abnormality said to be extremely rare in females. General peritonitis was present.

I record this as an instance of prominent symptoms so masked as to throw one off guard. Here was a grave abdominal lesion, acute strangulation of the gut with peritonitis, and yet pain and tenderness on pressure were not marked; vomiting intermitted, and was never stercoraceous; the abdomen, except immediately prior to death, was quite flat and flaccid, admitting of free manipulation, the only remaining symptoms of import having been collapse and locked-up bowels. Nevertheless, fatal mischief was going on, which a snip of the surgeon's knife could in an instant have removed. The moral for me is in future not to quite discard intuitive feeling and first impressions in such cases (I had sent the patient to hospital expressly to operate) not to place too much weight in fæcal vomiting and other stereotyped symptoms, and when in doubt to operate without delay.

Case III.

This case—a successful one—I shall record briefly. Mrs. D., aged 30, admitted into St. Vincent's Hospital February, 1890, under the care of my friend and colleague, Dr. Fairfax Ross, suffering from intermittent abdominal pains, which, after admission, suddenly assumed a grave character. I was hastily summoned by Dr. Ross for a consultation with a view to operation.

The patient was blanched, haggard, pinched in expression, and moribund from pain and profound collapse, evidently the collapse of combined rupture and hæmorrhage. The signs and symptoms, coupled with the meagre history procurable, set our thoughts in the direction of extra uterine fœtation, with recent rupture of the cyst.

Moments were valuable, as the patient was *in extremis*, and, being entirely in accord with Dr. Ross, I set to work without waste of time in the usual elaborate preparation, and straightway opened the abdomen. Our diagnosis was verified. It was a case of recent extrusion of a 2½ months' fœtus through the ruptured and bleeding walls of an extra-uterine cyst of the left tubal variety, about 25 fluid oz. of blood having been poured into the abdominal cavity. Ligature and removal of the structures were accomplished; the abdominal cavity was thoroughly flushed with warm boracic solution and thoroughly cleaned with as little manipulation as possible. The wound was sutured. The patient rallied with wonderful rapidity, and was discharged cured 15 days after the operation.

This case, in marked contrast with the others, shows what may be accomplished, even in a moribund condition, by surgical interference. It is only fair to add, however, that in Case No. I above recorded I could not by any means be certain of success, as 36 hours had elapsed before the patient's removal to hospital—quite enough time, to my mind, to have produced such changes in the strangulated cyst as would lead to sepsis and its attendant deadly evils.

The Directors of the Prince Alfred Hospital have passed the following resolution with reference to Dr. Purser's resignation as Medical Superintendent of the institution:—"In accepting the resignation of Dr. Purser the Board desire to place on record their appreciation of the manner in which he has during the past three years performed the responsible duties of Medical Superintendent. They have found him at all times devoted to his work, efficient, conscientious, just in discipline, and above all, earnest in his desire to promote the best interests of the hospital."

PROCEEDINGS OF SOCIETIES.

BALLARAT (VIC.) MEDICAL ASSOCIATION.

THE ordinary monthly meeting was held in the Board Room of the Ballarat Hospital on the 30th August, 1893, at 8.30 p.m. Present: Dr. Morrison (in the chair), Drs. Pinnock, Salmon, Mitchell and the Hon. Secretary (Dr. Scott).

The minutes of last meeting were read and adopted.

After correspondence and routine business had been disposed of, Dr. Woinarski's paper on "Uræmia sequent on Measles" was read. The patient was a child of six years of age, and developed the exanthem in the usual course; but about the nineteenth day showed signs of scanty micturition, but no albumen nor other toxic symptoms appeared until three days later, when patient rapidly became comatose, the urine highly albuminous, and death followed.

A CASE OF URÆMIA SEQUENT ON MEASLES—DEATH.

By S. ZICHY-WOINARSKI, M.B., B.S. MELB., F.R.C.S. IREL., M.R.C.S. ENG.

THE extreme rarity of uræmia as a fatal complication and sequela of measles, and the fact of two other cases having occurred during the present epidemic in Ballarat, impels me to present to you the following notes of a case which recently occurred in my practice.

E. H., aged six years, living in Raglan-street south, a well developed and nourished child, with absolutely no prior history of ill health, was seized with measles about 10 days prior to my seeing her. From what her mother told me the incubation stage had been short (six days), and the prodromal symptoms had been marked by intensity of nervous phenomena rather than catarrhal. The eruption on the fifth day was fully developed and typical, and the course of the exanthem was as favourable apparently as that of two of her sisters who developed the eruption six days before she did.

I saw her first 10 days after the eruption had fully developed, this being, therefore, about her 15th or 16th day of illness, and was called in for "a bad cold after the measles." From what her mother told me, and inspection of another member of the family also ill with measles, there could be no doubt from the history of the patient having had measles, and not scarlatina nor rubella, and besides there was brawny desquamation of the skin. The child had a temperature of 102, laryngeal cough, and broncho-pneumonia, most marked over the left side of the thorax. No membrane was found in the fauces nor below. The child was taking her food well, was bright and cheerful, and conversed freely with her sisters. Under treatment the temperature fell, the thoracic symptoms cleared up, and the child seemed better; but on the fourth day of my attendance the mother informed me she was passing very little urine, and what there was was dark, smoky, and of syrupy consistence, but that she had not kept any, so I could not examine it; constipation was present.

I ordered poultices of mustard and linseed over the kidney region, and internally diuretin in 4gr. doses, with the tinct. apocynii canabini in 5♏ doses. Next morning there had been little, if any, water passed; but as the mother told me there had been fairly free catharsis, and that the child said she had passed water at stool, it was impossible to say how much, if any, had been passed. I carefully examined the region of the bladder, but there was no dulness; yet, to be sure, passed a catheter, but only a few drops of smoky, dark, syrupy urine flowed out.

On this, the second day of this almost complete anuria the child was taking the food ordered well, and though somewhat apathetic, brightened up when spoken to; had no headache; no vomiting; the tongue was moist, slightly coated with white fur, and her pupils acted readily to light. I ordered $\frac{1}{100}$gr. hydrochlorate of pilocarpine every hour, still continuing the tinct. apocynii canabini and the local counter-irritative.

At my next visit there was a slight improvement, as the child had passed the bowl of a toilet soapdish full, had perspired freely, and seemed altogether better. This urine I tested roughly in the bedroom by heating, but there was absolutely no evidence of any albumen; this I now think must have been due to the presence in the urine of albumen in the form of alkali albumen, which, of course, accounted for the heat test failing in the absence of acid also. Unfortunately any further examination on my part of this urine was rendered impossible, as in sending it up to me by a messenger the bottle became broken.

The next evening I had the opinion of my friend, Dr. Whitcombe, in consultation. A similar quantity of urine had been passed, but nearly all at stool, and therefore mixed with fæcal matter. The motions were four to five a day. We decided to try digitalis, leave foments over the kidney region, and increase the pilocarpin to $\frac{1}{80}$-grain doses, giving this with small doses of tinct. ferri muriatis. The urine, as tested by us by heat, gave no evidence of the presence of albumen beyond the faintest cloudiness, which we thought probably due to the admixture with fæcal matter. The child's breath was now markedly urinous, and she was dull and apathetic, and not taking her food so well. I must here mention that warm baths had been up to the present given every eight hours.

After this her general condition failed. Her legs became anasarcous; her eyelids and face puffy, bloated and pasty. Her urine, which dwindled to a few teaspoonfuls, became markedly albuminous, coagulating almost completely, even with the simple heat test, and on the only occasion on which I had the opportunity of microscopically examining it, gave the microscopic appearance of tube casts; in short, of ordinary acute desquamative nephritis, and she died three days later comatose.

Uræmia being so rare a complication of measles, and the absence (apparently) of albumen with anuria, and the subsequent intense coagulation, made me judge this case one of more than passing interest. Might it not be that in this case the morbific matter expended most of its violence on the hypoblastic tissues in place of the ordinary site of its intense development—the epiblastic? Very few, if any, of the text-books mention uræmia as a sequence—a complication—of measles; and of those that do, it is mentioned in a casual manner only.

Dr. Scott read notes on a "Case of Intussusception" in an infant eight months old. The symptoms were at first not such as would lead one to suspect invagination, nor did palpation reveal any tumour. Vomiting was entirely absent, and the bowels were not wholly obstructed. On the evening of the third day of the attack stercoraceous vomiting, with evacuation of blood and mucus, set in, rapidly followed by collapse and death. A *post-mortem* examination showed that the whole of the large intestine and portion of the small bowel were invaginated into the sigmoid flexure.

CASE OF INTUSSUSCEPTION.

By Robert Scott, M.B., Ch.M., Ballarat, Victoria.

Late in the evening of the 4th August I was called to see a female infant (E.S.), *æt.* eight months. The history of the illness given by the mother was that two days previously the child had been in its usual health, but during the night had become very restless, and would not sleep; cried and appeared to be in pain. She had given the infant some castor oil next day, which had operated. The infant was naturally of a constipated habit. The bowels had only moved once, and with the motion was a litttle blood. There had been no vomiting, and the child had taken the food given to it (cows' milk diluted). When I saw the child, the face presented a slightly muddy expression, and the "nasal" line, indicating digestive trouble, was marked, but not strongly so. The eyes were clear; respiration more rapid than normal; temperature (per rectum) 101; tongue slightly furred, but moist.

On examining the abdomen no localized swelling or tumour could be felt, though the parietes were somewhat hard, which rendered palpation more uncertain. The child, in fact, presented symptoms at this time of suffering from an attack of enteritis. I prescribed a sedative mixture, and ordered whisky compresses for the abdomen, and gave particular instructions as regards diet.

The next day when I saw the child she presented much the same condition. The bowels had not moved, and there had been no vomiting. I ordered the same treatment to be followed, and prescribed a powder containing pulv. rhei and mag. carb.

The next day when I called the mother said the child had slept a little, and that the bowels had moved slightly, and that it had vomited on two occasions after food. The child did not, however, present any alarming symptoms, and palpation and percussion over the abdomen gave no evidence of any tumour.

Late the same evening a message was sent to say the child was very ill, and had passed a large quantity of blood, and was vomiting fæcal matter. I found the child in a state of collapse, and considered any operative interference was out of the question, nor would the parents consent to such procedure.

The child died a few hours later—just 48 hours after I first saw the case, and hardly four days after the first onset of the illness.

I informed the parents what I considered was the cause of the trouble, and particularly requested permission to make an examination as the symptoms had been so obscure, to which, I am glad to say, they consented.

I found a part of the small intestine, cæcum, ascending, and part of the descending colon, all invaginated into the lower part of the descending colon and the sigmoid flexure, so that the tumour lay in the left inguinal fossa. This is seen in the specimen shown, the upper (invaginated) cut end being ileum, and the lower cut end the upper end of the rectum.

This case is a very interesting one, showing how intussusception may come on in infants with almost total absence of symptoms to help one in arriving at a correct diagnosis. I have no doubt but that the invagination was present, at least to some extent, when I first saw the child on the night of the 4th, and probably laparotomy performed then, or even next day, would have saved the child's life. But the absence of symptoms led me astray, the only one which might have pointed to the true cause being the mother's statement that a little blood had been passed with the evacuation following the administration of the oil.

The absence of any vomiting until about 14 hours before death was another misleading sign, as also the paroxysms of pain and screaming, which are noted as accompanying this affection.

The diagnosis and treatment of diseases of children has always been regarded by me as one of the most interesting, but yet one of the most difficult, branches of the profession, and a case such as the above shows how easily one can overlook the real cause. May not a number of cases which are certified as dying from "gastro-enteritis" be cases of intussusception? and if so might not the infant mortality, which is so terribly high, be considerably lowered by operative interference?

It is well known that infants under 12 months are specially prone to this affection, which has been ascribed by Rilliet as "due to the looser connections of the cæcum in the iliac fossa at this age, and also to the imperfect development of its muscular bands, which lessen its resistance to the penetration of the small intestine into its interior." I think its causation might be attributed to the straining and tenesmus present in cases of enteritis and gastro-enteritis even more frequently than is thought, and that that may really be the final act of the drama more often than one imagines, masked as it is by the other more prominent and distressing symptoms of vomiting and purging.

EXHIBITS.

DR. R. D. PINNOCK showed exhibits, and read notes on "Two Cases of Multiple Vesical Calculi."

1. T. H., *æt.* 62, male. Removed seven small uric acid calculi by lateral lithotomy 6th November, 1891. Operated again 24th August, 1893, lateral lithotomy, and removed 19 uric acid calculi coated with phosphates, total weight=695gr. Patient is doing very well at date, August 30, 1893.

2. J. H., *æt.* 76, male. Operated August 25, 1893, by lateral lithotomy, but found it impossible to remove or crush the nuclei owing to their being so firmly encysted in anterior wall and base of bladder respectively. Completed operation above pubes and removed two encysted nuclei weighing respectively 586gr. and 534gr., and crushed *débris*, bringing up total weight to 3,692gr. Some of the crushed *débris* being lost would increase total weight, which exceeded ½lb.=3,500gr. Patient died 20 hours after operation. In this case the remarkable feature was the total absence of any bladder symptoms until three weeks prior to operation, when he began to have constant desire to pass water, but scarcely any would come away. I saw him for the first time four days prior to operation, and the risks being explained, he decided to undergo it. Patient had well-marked mitral and aortic disease. Three years ago, when living on a selection on the Wimmera, he occasionally passed gravel, but not any recently.

Out of 13 operations for vesical calculus seven have been cases of multiple calculus, viz.:—Three with two calculi, one with three, one with seven, one with nineteen, one with fifty-four.

QUEENSLAND MEDICAL ASSOCIATION.

◆

THE usual monthly meeting was held in Brisbane, September 13, when there were present: Drs. Taylor (in the chair), Marks, Jackson, Brockway, Hirschfeld, Lyons, O'Doherty, McNeely and P. Bancroft.

Two new members were nominated.

DR. HIRSCHFELD read a paper "On the Therapeutic Value of Carica Papaya."

ON THE THERAPEUTIC VALUE OF CARICA PAPAYA IN CANCER.

By E. HIRSCHFELD, M.D., BRISBANE.

◆

PAPAIN, the digestive ferment contained in the unripe juice of the Pawpaw apple, has been in use as a medicinal agent for a considerable time. More particularly it proved valuable in diphtheria for the purpose of digesting the false membrane, and in cases of deficiency of the gastric juice it was administered to take the place of pepsine in the digestion of albumine. The preparation generally used is the dried juice of the unripe fruit as prepared by Finkler, in Bonn.

Mr. W. Soutter drew my attention to the plant and suggested that it might be possible to destroy by its digestive properties cancerous new growths. The idea seemed very plausible, and as a matter of fact, when afterwards looking through the literature, I found it had been proposed for the same purpose before. Professor Rossbach, in Jena, advises the injection of diluted solutions of the papain in tumours of cancerous and glandular structure where extirpation is contraindicated. However, nothing more can be ascertained beyond the fact that he recommended its administration in such cases; nothing is known whether it was accompanied by success or not. The removal of warts and hypertrophied conditions of the skin by the exhibition of papain is reported by other authors.

As regards my own experience, I have in the first instance to report that any hope to find in papain a curative agent for cancer was certainly not realized. Its growth was not checked even under conditions where its application seemed to be made under the most favourable circumstances, *i.e.*, in large ulcerating surfaces, where there was the best opportunity to act directly on the cancerous tissue. This failure, however, cannot come as a surprise when we consider that an epithelioma forms part of the body of the affected person, just as every other natural tissue does. If papain possessed the power of digesting living tissue, it is apparent that its action would not be restricted to the epithelial cells of the cancer and its connective tissue framework. There is no reason to assume that the connective tissue and epithelial cells when forming the normal tissue should then escape its action. Living tissue, no matter of what nature it is, cannot be affected by any digestive ferment.

In pursuing these investigations, the result arrived at was very different from the one expected when they were started. While it was a complete failure as a curative agent in carcinoma, I found it a most valuable palliative on account of certain qualities possessed by it that have hitherto been overlooked, namely, (1) its analgetic, (2) its antiseptic properties. This analgetic action of the pawpaw juice showed itself not only in cases of cancer—in a very extensive case of lupus where the left eye had been destroyed by the progress of the disease its effect was most striking. After the first application, which was only made on a small part of the ulcerating surface, the patient declared that the pain, which had been formerly very distressing, had gone in the part treated, while it persisted in the remainder of the ulceration Of course such statements must always be taken *cum grano salis.* The patient looking forward to being relieved by a new remedy may believe such to be the case without any actual improvement. The auto-suggestion will be most potent as regards the sensation of pain. But there was no doubt that in his case the disappearance of the pain was not imagined, but due to the action of the juice. (1) It disappeared only from the part treated; as soon as the juice was used on the remainder of the sore the pain went away there too; it stayed away altogether for four months. (2) It reappeared for a very short time in the depth of the orbita, and on examination a foul smelling and secreting spot was discovered in a recess where it was difficult for the juice to penetrate. The application of some lint, soaked in juice and pressed on to the spot, took the pain away speedily. So far I used the juice only on ulcerating surfaces of cancers that were easily accessible, but I think that a local analgetic that restricts the use of morphia or cocain in such cases is of very great value, for instance, in the excruciating pain of ulcerating uterine carcinoma.

As regards its antiseptic properties, I first noticed it in some experiments for the determination of the comparative digestive powers of different solutions. In one test tube a piece of meat in 10c.c. of water, to which 10 drops of the fresh juice of the leaves were added, showed after a week no sign of decomposition. I followed this up, and will report about the result of the experiments on another occasion. The experiments in the test tube were amply confirmed by practical experience. In every case of ulceration that came so far under observation it was possible to clean the surface from the slough within a very short time, mostly within 24 hours. In one case of ulceration of the foot that had been for some time in the hospital, in whom the dressings had to be changed five times in 24 hours, the secretion diminished at once, and after a day required changing once only in 24 hours. In this patient the pawpaw leaves themselves were used, after having been bruised in the mortar. This antiseptic action did not fail in any case in which the remedy was used, no matter by what the ulceration had been produced. If we inquire for the reason of the analgetic and antiseptic properties of the papan juice, I believe the following to be the most feasible explanation: I think that the antiseptic action is due to the direct effect of the digestive ferment on the bacteria, keeping up the suppuration by simply digesting them and the slough formed on the suppurating surface, while at the same time the papain may form such a combination with the albumine of the cells as to render the growth of bacteria impossible, in a similar way as pepsin combines with the albumine digested by it. It is further extremely likely that the labile composition of albumoses as produced by the action of micro-organisms is transformed in the process of digestion into other non-poisonous products of the nature of peptones.

And here I wish to draw your attention to the very essential difference that exists between the general body of antiseptics and the action of the papain. The antiseptics owe their antiseptic qualities to the fact that they are protoplasma poisons. They destroy the bacterium because they destroy every living cell. It is, therefore, impossible to use any antiseptic without injuring, more or less, at the same time the tissue on which the bacterium has settled. Papain acts differently. It destroys the bacterium by digesting it, while it cannot affect the living tissue in which blood circulates, and can only digest the gangrenous slough formed by pus corpuscles, extravasated blood, fibrine, &c.

The analgetic action may be traced to the same source. The pains are produced by the ends of the nerves terminating in the ulcerating surface being laid open by the ulceration, and the suppuration attacking the nerve fibre within its neurolemna by the emigration of pus corpuscles into it. As soon as the ulcerating surface is cleaned from the slough, and the diseased smallest termini of the nerve fibres consumed, the pain will disappear until the fresh terminus has been affected again by the ulceration.

Now a few words as to the mode of applying it. I first used the leaves themselves after being crushed. They make a very good dressing for foul ulcerating sores, but have the disadvantage that it is rather difficult to remove them, especially from deep recesses. They vary in strength; young leaves are not so effective as old ones. The juice of the leaves pressed out may be objected to for the same reason of varying strength; besides, it does not present a very inviting appearance, though having a very agreeable smell. It does not keep for any length of time, or at least becomes unreliable. The best form of application is the juice of the unripe apple mixed with equal parts of glycerine. It keeps very well, and after allowing a little time for the sediment to settle it, a perfectly clear yellow liquid may be obtained. Mr Brown, dispenser at the General Hospital, makes up great quantities of this juice as used in my experiments; and if any of the gentlemen feel inclined to repeat or control the experiments, it might be advisable to use the same preparation.

Dr. Francis contributed notes of his experience of papain as a selective caustic in tubercular ulceration of the vocal cords, lupus and diphtheria.

Drs. Marks, Jackson, Taylor and McNeely joined in the discussion.

Mr. C. J. Pound, lately of the Sydney University, gave a very interesting demonstration in bacteriology, showing cultures of many pathogenic organisms in various media microscopic preparations and photomicrographs of the same.

The **President** announced that at the next meeting Dr. Ed. O'Doherty would introduce a discussion on the puerperal state by reading a paper.

EASTERN MEDICAL ASSOCIATION OF SYDNEY.

The third annual re-union of the Eastern Medical Association took place at Quong Tart's tea rooms, Sydney, on Tuesday, October 3. Dr. Collins, president, occupied the chair, and there were present Drs. Badham, Coutie, Craig Dixson, Dowdell, Edwards, Eichler, R. T. Jones, Laure, McNeill, Maguire, T. M. Martin, Matheson, Angel Money, Mullins, Neill, Philip, F. H. Quaife, Scot Skirving, Service, Walker Smith, P. M. Wood, Worrall, and others. After the minutes of the last annual meeting had been read and confirmed, the annual report was read by the honorary secretary, Dr. Mullins, and was considered very satisfactory. The report showed that the past year was the most successful since the foundation of the Association in 1890, and that the roll of membership, ordinary and honorary, contained 86 names. The honorary treasurer, Dr. Barkas, then placed his financial statement before the meeting. The next business was the election of office-bearers for the year 1893-4. The following were nominated and elected without opposition:—President, Dr. C. A. Edwards; vice-president, Dr. W. J. Barkas; members of council, Drs. P. J. Collins, G. L. Mullins, and A. Philip; hon. treasurer, Dr. F. H. Quaife; hon. secretary, Dr. A. F. Parker; auditors, Drs. J. A. Dick and G. E. Twynam. Some alterations in the rules were passed, and the newly-elected president having taken the chair, the rest of the evening was taken up with music, &c. A very pleasant evening was spent, Drs. Edwards, Laure, Maguire, Scot Skirving, Messrs. Lewis Scott, Ashcroft Edwards, Bellingham, Buckridge, and Signor Lardelli entertaining the company.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Monthly meeting held at the Adelaide Hospital on 31st August, 1893. Present: Prof. Watson, in the chair; Dr. Swift (Secretary), Drs. Lendon, Way, Symons, Giles, Todd, T. K. Hamilton, Singleton, A. A. Hamilton, J. A. G. Hamilton, Hayward, Rogers, Archer, Gibbes, Leschen, McLeod and Seabrook.

Pathological Exhibits by Professor Watson.

1. Rupture of an aortic cusp, with vegetations on torn edges, and small sacculated aneurism forming just below corresponding sinus of valsalva, *i.e.*, in uppermost limit of ventricle.

2. Tubercular epididymitis from man, *æt.* 40, who died of acute general tuberculosis.

3. Mitral stenosis and pericarditis from man *æt.* 34. Mitral orifice is reduced to a mere slit.

4. Cancer of neck of uterus from woman, *æt.* 76, who died of suppression of urine; the vesical ends of ureters being involved in a vesical extension of cancer.

5. Two amputation stumps at seat of selection from a man, *æt.* 47, who had both his feet crushed off by a train. The left leg, amputated by a modern Farabeuf, or antero-external musculo-cutaneous flap, was doing well. The right, amputated by lateral skin flaps, was going wrong at time of death—49 hours after operation, as both flaps were sloughing.

6. Skull and long bones of a Chinaman's wife (European), *æt.* 28, who died of tertiary syphilis, gumma of sternum, syphilitic periostitis of all the long bones, and loss of greater part of hard palate, &c.

7. Prolapse of distal segment of gut ensuing on inguinal colotomy in first part of sigmoid flexure from a man, who suffered from carcinoma recti.

8. Ovarian pedicles from a woman, *æt.* 28, on whom double oophorectomy had been performed. Outer loop of ligature of left side has slipped. Death ensued from hæmorrhage.

9. Old unreduced dislocation backwards of head of femur from a male dissecting-room subject *æt.* 70. The obturator internus and gemelli muscles have been torn, and with the quadratus femoris are substituted by fibro-fatty bands. The pyriformis and obturator externus are much stretched; the ilio femoral ligament untorn.

Dr. Todd showed an abscess of brain in a child, *æt.* 15, following measles. Trephining in usual place; needle passed towards temporo-sphenoidal lobe and passed as shown *post-mortem* through the abscess. At *post-mortem* examination abscess about size of walnut found a quarter-of-inch in from trephine opening. Pus was found at base of brain.

Dr. J. A. G. Hamilton showed some blood clots and a small piece of hydatid membrane removed from a very large hydatid tumor of abdomen. The patient had an enormous tumor of abdomen, filling the whole of the abdominal cavity, springing from right side—evidently from the liver. In cutting down on it, the tissues were dark-coloured and densely matted, giving one the idea of a sarcoma. It contained some pints of dark-coloured fluid, and about two pounds weight of solid red material, like the specimens in the bottle. Amongst this were a few pieces of hydatid membrane, curled at the edges, the largest piece being about the size of a florin. These were the only remains found of either mother or daughter cysts. Prof. Watson pronounced the solid material to be organized blood, evidently caused by the rupture of a blood vessel into an hydatid cyst. The cavity was washed out and drained. There was a good deal of suppuration, but it was quite healed up in two months after operation.

Dr. T. K. Hamilton exhibited a fibroma removed five months ago from the naso-pharynx of a lad aged 12 years. It was removed with the cold snare, and was then about the size of a pigeon's egg, so that it filled up the whole post-nasal cavity. Up to the present there has been no recurrence of the growth.

Dr. Bickle (Mount Barker) showed a Gross' spiral metal prostatic catheter.* The portion immediately behind the eye is flexible, the metal being cut spirally. Although useful in skilled hands, it was not safe for others. In the first case he used it he passed it easily over a large obstruction, but on the patient himself essaying to use it the end was nearly broken off. But his object in showing it was to point out another use that could be made of it, viz., an electrode in applying the constant current to an enlarged prostate by the rectum. He used it for a case of very great hypertrophy, the gland projecting very largely into the bowel. The catheter had to be used every two hours, and all drugs had failed to lengthen this time. He insulated a portion with rubber drainage tube so that the current did not act on the sphincter and mucous membrane of the anus. The flexible portion, by careful introduction, found its way round the the enlargement, and a large surface was thus exposed to the current. A fairly large, flat, moistened electrode was placed over the bladder anteriorly and a Le Clanché battery was used. The sittings were usually from 10 to 15 minutes, and from six to eight small cells used. The current could just be felt by the patient. The treatment was continued some weeks, and one feature noticed by the patient and his wife was the very disagreeable odour given off by the urine. The results of the treatment were these : The length of time for use of catheter was increased till the patient could go four, five, and on a few occasions seven hours without using it. This improvement has remained constant despite the cold damp weather. He suffered severely from "spasms of bladder," as he termed them ; these have been greatly modified in intensity. No shrinkage of the gland was or is noticeable. The patient is over 91 years of age, and though still with a considerable amount of vigour, any operative procedure is out of the question, and he is greatly pleased with the relief he obtained by the treatment.

Living Exhibits.

Dr. T. K. Hamilton exhibited a lad, nine years old, with ectopia lentis. There is a symmetrical displacement of the lenses upwards and outwards. Iridodonesis is present where the irides have least support, and there is also a periodic convergent concomitant strabismus on the left side. Vision = fingers at 1.5 m. $\bar{c}$ + 14 D. $\frac{6}{60}$ and J. 4 at 12 c.m. No hereditary origin discoverable.

Dr. Giles showed (1) Amputation at the hip-joint. Patient, a boy *æt.* 10, now in excellent health. Operation performed on 16th April, 1893. Furneaux Jordan's method adopted, and an admirable stump has resulted. (2) Excision of knee-joint, man *æt.* 34. Knee was bent at an angle of 135°, and only toes could touch the ground before operation ; complete osseous anchylosis existed. Operation performed on the 20th July, 1893 ; union occurred by first intention, and leg now straight and strong.

The **President** showed a man with lymphangioma, probably congenital, spreading into skin of chin, with some relief from cutting away a portion of mucous membrane.

Dr. Verco showed his case referred to in paper.

Dr. Verco read his paper on "Nephrectomy," which was discussed by Dr. J. A. G. Hamilton and the President.

HYDRONEPHROSIS, NEPHROTOMY, AND NEPHRECTOMY—RECOVERY.

By Dr. Jos. C. Verco, Senior Physician Adelaide Hospital, Lecturer on Medicine University of Adelaide.

◆

W. R., a boy aged seven years, was first seen on 14th November, 1892. He came from the country. He had been subject to colicky pains in the abdomen at intervals for the last three years, attributed to eating some green apples when four years of age. About every month he is laid up for one or two days with agonies of pain in the belly, crying and stiffening himself out with his neck bent back, one leg drawn up and the other extended, complaining of a choking sensation, and obtaining some relief by retching. These paroxysms were attributed by the doctor who saw him at home to obstruction of the bowels. These were occasionally costive, but were generally regular. His appetite has been poor, and he has headache when the attacks are on.

On examination, the boy looks fairly healthy. There is found no physical abnormality except an abdominal tumour, most prominent an inch to the left of the middle line and two inches below the navel. Here it visibly bulges the abdomen somewhat obliquely from above downwards to the left. It fills all the hypogastric region and the lower umbilical, nearly all the left iliac and a good deal of the right. The left side of the tumour is round and overhanging, but the right side is slanting, sloping away so as to be lost a little beyond the middle line ; and so upwards it can be felt about an inch above the navel, and is gradually but rapidly lost. The fingers can be insinuated between it and the left Poupart's ligament, and with difficulty between it and the symphysis pubus. It is smooth and elastic, and slightly movable from left to right. It is dull on percussion, with resonance between it and both costal margins. Both lumbar regions are free from enlargement. The urine has a little flocculent floating phosphates increased by heat, but no albumen or sugar. He was never known to have had any hæmaturia.

On 17th November, 1892, Dr. Lendon gave ether. Dr. W. A. Verco assisted me. I opened the abdomen in the linea alba by an incision two and a half inches long. This was to the right of the most prominent part of the tumour. The tumour had seemed to me to originate from the right side of the deeper part of the abdomen, and to project over to the left; and hence, as the retraction would subsequently be to the right most probably, the incision through the linea alba would be an advantage. The omentum, as a very delicate membrane covered it, had to be pulled up beyond it. The surface of the tumour was smooth, but was much more vascular than a hydatid usually is. The left side was free and could be traced down to the front of the spinal column. Below, the finger could be passed round the end of the mass, which descended a little into the pelvis, but the viscera were unattached to it. Above, it could be felt to be free, but to the right of the spinal column it was less prominent, and was attached broadly to the right lumbar region, close to the spinal column, along its whole vertical extent. A silver catheter showed the bladder collapsed at the bottom of the pelvis and having no apparent connection with the growth. No intestine was directly attached to it. At the upper right side there seemed to be at its base of attachment some solid material, believed to be the right kidney. An aspirator needle was introduced, and some urinary-looking fluid withdrawn. This was found to contain a mere trace of albumen. The cyst was now transfixed longitudinally and held forward by the threads passed on each side, and opened by a longitudinal median incision. On introducing the finger, no hydatid cyst was found. The inner surface was smooth on the left side and below; at the upper right back part was a small hole, which would admit only the tip of a finger, and seemed to be the opening of a calyx of the kidney, the substance of which could be obscurely felt around. There was a kind of bag formed at the lowest part of the cyst on the right, owing to a sort of constricting band coming from the supposed kidney. The cyst had been well douched out before exploration. The abdomen was now douched out and emptied, and the cyst sewn to the abdominal wall and the abdominal wound closed, except where the two drainage tubes were put into the cyst. Dressed with iodoform and gauze.

---

* These Catheters can be obtained from L. Bruck, Sydney; price, 6s. each.

Everything progressed uninterruptedly well, and he was sent home with a urinary fistula in the lower abdomen discharging a large quantity of urine daily. The only circumstance of interest was that during the night after the operation he was troubled with frequency of micturition, and the urine collected from the time of operation until the next morning was turbid and white, as though containing phosphates. But after standing twenty-four hours in a conical glass, although still rather turbid, there was a layer at the top of a light buff colour like dirty cream, not as a film on the surface, but floating in the water which was distinctly and smoothly covering it. This was poured off easily and completely into another vessel. The remainder was tested—strongly acid; 1033; no albumen or phosphates; a little glucose; and a precipitate on boiling with liq. potassæ, supposed to be mucus. The floating material, under the microscope, consisted almost entirely of small round bodies about twice as large as blood discs, and from their refractory character evidently fat globules. On shaking with ether and allowing to stand, the turbidity disappeared, and there was formed a turbid ethereal layer on the top of clear urine. The material was demonstrably fat. The urine passed the next day was acid; 1020; no albumen or sugar, but a buff-coloured sediment at the bottom, consisting entirely of triple phosphate crystals. No fat was ever found again.

He was readmitted to the private hospital, and on January 14, 1893, Dr. Lendon gave him ether, and Dr. W. A. Verco assisted me in a second operation. An incision was made in the right semi-lunar line from just below the ribs for about three inches, and subsequently enlarged downwards for another inch. On opening the abdomen the ascending colon was found in its normal position; the caput coli, with the vermiform appendix, was drawn out of the wound, and the small intestine was found to join it above the cyst, which was anchored at one point to the old wound in the linea alba below the navel, and at the other to the kidney. This proved that the hydronephrosis in growing downward and forward had not bulged the inner or anterior layer of the meso-colon or mesentery, but the posterior, or rather the lower layer of the mesentery, so as to push the ileocœcal valve inwards and upwards. Although the caput coli hung down on the right side of the cyst in the iliac fossa, it could be pushed up and in, so that no bowel intervened between the cyst and the wound in the abdomen. This made it possible to remove the whole cyst and kidney through an incision in the posterior meso-colon.

The finger in the peritoneal cavity could be passed all round the cyst.

The bowels were pushed up and in, and retained by sponges, and the posterior meso-colon incised over the kidney. This was demonstrated and made prominent by enlarging the old wound in the linea alba, so as to admit the finger of an assistant, which was passed right into the calyces of the kidney. The hilum was reached, and a sort of pedicle formed with some difficulty owing to the anchored cyst. The vessels were felt to enter the kidney at its uppermost part. A ligature was passed with an aneurysm needle and tied, the distal, *i.e.*, renal, part secured with pedicle forceps, and the pedicle divided. The rest of the kidney was now freed; a vessel and a couple of adhesions required tying. The lower end of the kidney was down at the brim of the pelvis. The organ was now only attached by its cyst to the old wound, so the peritoneum was stripped off it, and it was ligatured by transfixion, like the pedicle of an ovarian tumour, and cut away. An attempt was made to evert the remains of the cyst through the old wound, but without success till the ligatures were removed. Then it was easily done, the peritoneal surfaces being together, and the mucous membrane outside. It was then sewn together by a continuous suture. After the kidney and a part of the cyst had been excised, in stripping the peritoneum further, the ureter was found. It did not seem dilated, but to spring of its normal size from the lowest part of the cyst. It was tied, divided, and allowed to fall down into its proper place. The abdomen was flushed out with warm boracic lotion, and the abdominal wound sewn up and dressed with iodoform and gauze.

The kidney was of full size. There was almost the full amount of renal tissue, seemingly normal. The organ was slightly lobulated. The renal tissue was slightly thinned and flattened out. The cyst consisted of the dilated pelvis and calyces. The pelvis throughout was dilated, but the condition was more marked below. Here there was a large unilocular cyst, with the calyces confluent, and the flattened pyramids at its base. At the upper part the calyces were dilated into channels and pockets, some admitting a penholder, others the thumb. There was a faintly granular or reticulated surface to the mucous membrane, such as is seen in the gall bladder. The whole organ appeared to be dragged downward, so that the lower end was close to the brim of the pelvis.

His progress was very satisfactory for a week, the temperature fluctuating during the first five days between 99° and 101°, and then being normal for two days. Three stitches were removed on the fifth day, four more on the sixth day, and the remainder on the eighth day. Then his temperature began to run up, and in five days more had reached 103° at night, with morning remissions to 99°. He began to complain of pain in the right side of the abdomen, and after some days a fulness and hardness could be felt between the two abdominal wounds, and on 1st February he had frequent desire to pass water, and some pain in the penis. So concluding there was a collection of pus in the lower part of the post peritoneal cavity from which the cyst had been removed, Dr. W. A. Verco put him under chloroform on that date, and I aspirated through the wound in the middle line in several directions, but could strike no pus, the needle appearing to enter only solid material. But the next morning his urine, which had been invariably alkaline since the operation, but clear or slightly turbid with phosphates, was of the consistence of thin jelly from altered pus. An abscess had burst into the bladder. The temperature fell the day after to normal, and remained practically normal for ten days. The abdominal swelling on the second day was almost impalpable. The pus continued to pass in the urine for nearly three weeks in gradually diminishing quantities, and then the water became quite clear. But in the meantime, on 12th February, the temperature ran up to 103°, and he began to complain of some pain in the right lower abdomen, without tenderness or hardness at first. Three days before this he had complained of some pain about the right knee, and the thigh did not extend fully upon the pelvis. The temperature remained at this height with morning remissions of 3° for ten days, the hip joint became more flexed, and a hardness and fulness developed in the right iliac region, just above Poupart's ligament. So he was anæsthetized again, and aspirated several times for pus, but none was found. His temperature fell to normal and remained there for another ten days, although no pus appeared in the urine. Then it rose a third time gradually to 102° with the morning remissions, and after it had been up a week, as the tenderness and hardness remained in the iliac region and the thigh was acutely drawn up, and I fancied I felt deep fluctuation, I made a vertical incision over the supposed collection; but after going through layer after layer as deeply as I dared, and getting no pus, I tried with the aspirator from the bottom of the wound, but unsuccessfully. However, the temperature fell again to 99° and gradually to normal, the hardness and fulness and flexion of the limb slowly subsided, and he was allowed to be up on 25th April, and was sent home cured a month later.

There are many points of interest in this case.

As to the cause of his hydronephrosis, there seems never to have been any calculus. I twice sounded his bladder with negative results. I examined the lower end of his ureter per rectum; there was no stone in it. The ureter, when seen at the operation for nephrectomy, was not dilated. There was no history obtainable of either blood or calculus passed per urethram.

The fact that the ureter came off abruptly from the cyst of its normal size, suggests that the cause must have been some twist or kink in the tube. I am disposed to believe this was occasioned by some malformation and consequent malposition of the kidney. The organ was very low; its lower end was beyond the brim of the pelvis (not the cyst only, but the kidney tissue). I think this predisposed the ureter to a bending on itself.

The history of repeated acute attacks of agonizing pain in the abdomen with flexion of one hip, although attributed to obstruction of the bowels, is suggestive of acute hydronephrosis, with spontaneous relief of the obstruction. But after repeated attacks the shape of the pelvis of the kidney became so altered that this relief was impossible.

The condition of the kidney after removal shows how completely the hydronephrotic sac was composed of the enormously dilated pelvis, the kidney itself being but very little hollowed out, and remaining in the loin.

The diagnosis was difficult. The situation of the tumour was so unusual. A hydronephrosis of the right kidney would scarcely be looked for in the left side of the abdomen, considerably below the navel.

One circumstance which would help in a future case was the peculiar manner in which the tumour overhung to the left and below, while its surface slanted deeply upwards and to the right.

As to the course after operation: He evidently had three attacks of inflammatory mischief; one with the formation of an abscess which burst into his bladder, and two which, though the temperature suggested pus, did not apparently go on to suppuration, but ended in gradual resolution. In a case of nephrectomy by Walsham in a little child for malignant disease of the organ, a similar flexion of the hip occurred, an abscess formed and opened externally, and discharged the pedicle ligature.

I should feel disposed in any future case of nephrectomy, even though performed by the anterior incision, to take a drainage tube through an incision in the loin. I think it would probably have shortened this case by fully two months.

The one kidney does its work very well. An average of four days' secretion was twenty-five ounces; very slightly alkaline; 1010; little phosphates with heat, and no albumen.

He was fitted up with an abdominal belt before leaving his bed, and his father writes that he is in better health than he has been for years.

DR. J. A. G. HAMILTON said he felt sure the members were very grateful to Dr. Verco for his very interesting paper on Nephrectomy. His experience of nephrectomy only amounted to two cases, in one of which he had operated by the lumbar incision, in the other by the abdominal one; and after his experience in those two cases he often wondered why the abdominal method was not more frequently used, especially when the kidney was a large one. In the words of Dr. Wood, "he took his hat off to the peritoneum," but in the present day the peritoneum can be opened with comparatively little risk, and he failed to see why the kidneys could not be more often removed by that route. Operating in that way we have a clear view, we can easily tie the pedicle, stop hæmorrhage, break down adhesions, and examine the kidney; whilst by the lumbar incision we are operating in a confined space, especially in women; and if the kidney be a large one it is difficult to remove, and it is often very difficult to tie the pedicle or stop hæmorrhage. In his first case he had first done a nephro-lithotomy; the pelvis of the kidney was enormously distented, containing a quantity of stones, one blocking the ureter; the kidney suppurated and became completely disorganized. Nephrectomy was performed by the lumbar method; great difficulty was experienced in removing the kidney—in doing so the colon was injured, necessitating a lumbar colotomy. The patient eventually recovered. In his second case the kidney, a large tubercular one, was easily removed through an incision in linea semilunaris; there was no peritonitis, and the patient made a rapid recovery—a great contrast to the other case.

DR. TODD read his paper on "Accidental Hæmorrhage." Discussed by Drs. Giles, Lendon, Verco, J. A. G. Hamilton, A. A. Hamilton, Archer, and Swift.

ACCIDENTAL HÆMORRHAGE.

BY C. E. TODD, M.D. BRUX., L.R.C.P. LOND., M.R.C.S.E., ASSISTANT SURGEON ADELAIDE HOSPITAL.

CASES of bleeding into the pregnant uterus, due to some accident which separates, partially or wholly, the placenta, are, so far as I know, of rare occurrence. Their early diagnosis, although all important, is a matter of great difficulty, and their management is beset with many anxieties.

On May 10 of this year I was called to see Mrs. G. R., a woman of 36 years. She had nine living children and her previous confinements had all been favourable. She never had any miscarriages, and she was in all respects a healthy, robust woman. She was now pregnant to the eighth month with her tenth child, and her pregnancy had advanced favourably until this date. During the night of the 9th of May she was much disturbed by the fœtal movements, and at breakfast in the morning, without any accident, she was suddenly attacked by violent pains of a tearing character in her womb. This made her feel faint and sick. During the morning the pain increased, and at five in the afternoon, when I saw her, she was in bed in acute agony. I gave her a morphine injection, and then, suspecting that the intense pain was due to accidental hæmorrhage, I applied a binder round the abdomen as tightly as it could be borne. Per vaginam the os was rigid, hard, and small, and there was no blood in the vagina.

At 7 p.m. I saw the patient again, and found her in acute pain, the binder had been removed because of the pain it caused, and she was now rather blanched and had a quick pulse. I could not detect any obvious increase in size of the abdomen since my former visit, but no fœtal heart could be heard. There was still no bleeding outwardly, and the cervix, although very hard, had dilated enough to allow me to rupture the membranes with my finger nail. Liq. amnii flowed without any blood, and the head was felt to be the presenting part. As the pains continued and the cervix remained in its contracted condition, I sent for assistance, and the patient was etherized at 8 p.m. In spite of the fact that the ether was pushed to the full surgical degree I found it extremely difficult to dilate the os, and in gradually insinuating my fingers the cervix was lacerated to a considerable extent. It was now possible to apply the forceps, and I delivered without difficulty a dead fœtus at the eighth month. The whole of the upper part of the uterus was occupied by bloodclot, which filled an ordinary bucket. The placenta was found lying quite loose embedded in the clot. As soon as the uterus was empty and the patient had come round to some extent, it began to contract, and I had no difficulty in controlling bleeding. I kept up pressure on the womb with one fist in the vagina and one hand on the abdomen for fully three-quarters of an hour, and the patient had then so far recovered from the ether as to ask after the child and to take a drink. I stayed with her another hour, and then, as her pulse was fair and the uterus was well contracted, I thought it safe to go home. After I had left about an hour the husband came to my house saying his wife had, while talking to the nurse, suddenly thrown up her arms and was dead. I examined the body and found the uterus occupied by a small clot, and there had been no further bleeding into the vagina. I find it rather difficult therefore to account for the sudden fatal termination of this case.

Dr. Playfair, in the "Science and Practice of Midwifery," refers to 106 cases of accidental hæmorrhage reported by Dr. Goodell in the second volume of the American *Journal of Obstetrics.* Of these 106 cases no fewer than 56 of the women died, or more than half. The prognosis as regards the child is still more grave, as only six infants were born alive. I know of no condition in midwifery in which early diagnosis is of so much importance and at the same time of so much difficulty.

DR. LENDON narrated a case which occurred six years ago, and which appeared to him to be undoubtedly an instance of concealed "accidental" hæmorrhage very similar to Dr. Todd's. When called, during the absence of her usual attendant, to see the patient, a multipara, he found her to be in great pain, with tense abdominal parietes; there were no signs of shock, and he did not suspect hæmorrhage, there being none externally; the os was only commencing to dilate, and he therefore attributed the pain to the injudicious administration of castor oil. After he had left the patient temporarily the friends summoned Dr. Jay, who was better known to them, and on arrival, three hours later, he found her moribund. The case is referred to in *The Australasian Medical Gazette* for April, 1892. Considering that the mortality of such cases is 50 per cent., Dr. Lendon supposed that the modern gynæcologist with advanced views would advocate a Pozzi's operation where one was certain of the diagnosis.

DR. SWIFT could not understand why Dr. Todd ruptured the membranes before the cervix was dilated, and before he had given the anæsthetic. It appeared to him that by so doing the cavity of the uterus was increased and there would be more room for bleeding, provided the uterus did not contract. Then he would like to ask what was the rate of the pulse when he left the patient. In his opinion the rate of the pulse after delivery was a very important indication as to whether or no it were safe to leave a patient. He had found it unsafe in many instances to leave if the pulse was much over 100.

DR. TODD, in reply, said: Dr. Verco has mentioned several possible causes of death in this case, but the one he thinks most probable certainly was not the cause, viz., renewed bleeding into a dilated uterus. The womb after death contained only a very small clot, and there was no blood in the vagina. I am inclined, myself, to attribute the suddenly fatal termination to clotting in the pulmonary artery. Dr. Giles referred to transfusion of normal saline solution. This did not escape my attention, and I could have got the necessary apparatus in a few minutes. The woman's condition, however, never appeared to me so grave as to demand this measure. Both Dr. J. G. Hamilton and Dr. A. A. Hamilton seemed to have their doubts that hæmorrhage ever occurred to such an extent as I have described without showing outwardly, but cases (often fatal) of concealed internal hæmorrhage are reported in most of the standard works on midwifery. They seemed to think that it would have been better treatment to have left the case alone, in the hope that the os would dilate and the child be borne naturally. This, under the circumstances, would have resulted in the patient's death without an effort to save her in the only possible way. Dr. Swift spoke of the rapid pulse after delivery as an indication of impending bleeding, and Dr. Verco and others thought that a quick heart only indicated that bleeding was going on or had taken place. I am inclined to place great reliance on the pulse rate in estimating the chances of bleeding, because experience teaches me that a woman with a rapid pulse is liable to get dilatation of the uterus and dangerous hæmorrhage at any moment. After ether, however, the heart always beats rapidly, and this is not necessarily an indication of danger. I have read this case with some reluctance, because of its fatal termination, but it is of the utmost importance that these cases should be early recognized, and that the only treatment which offers any chance of saving the woman, early delivery, should be adopted as speedily as possible.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE 110th general meeting of the Branch was held at the Royal Society's Room, Sydney, on Friday, 1st September, 1893. Present: Dr. Worrall (President), Drs. G. A. Marshall, MacMurray, Neil, Thring, West, Fiaschi, O'Reilly, Grace Robinson, F. A. Bennet, C. Martin, Crago, Rennie, Langhorne, A. Parker, Jas. Dick, Frizell, G. Davis, Clay, Morgan Martin, T. M. Kendall, McNeil and Jenkins (Hon. Secretary).

The minutes of the previous meeting were read and confirmed.

DR. F. A. BENNET read some notes on a "Case of Ichthyosis Palmaris et Plantaris," and exhibited the patient.

ICHTHYOSIS PALMARIS ET PLANTARIS.

By F. A. Bennet, M.A., M.D., C.M.

The palms of the hands and the soles of the feet are not usually liable to disease, protected as they are by nature in adaptation to their use by a specially thick, dense and horny epiderm. If, however, by any mischance, they should happen to become affected, we are all aware of how very troublesome and intractable disease here proves. I need only call to your minds such conditions as eczema or syphilis of the palms.

The difficulty of dealing with affections in these parts is probably due to the fact that here the blood-vessels, being in an especial manner bound down and compressed, tend to become permanently dilated, whilst our inability to apply equable pressure to replace faulty epiderm also militates against us. The distance of the palms and soles from the centre of circulation, and consequently the inefficient blood supply under any disturbing influence, accounts, in the opinion of some, for the origin and intractability of disease in these situations.

In the case which we have before us to-night there is no doubt that a deficient action of the sudoriparous glands, which must here also assume the *rôle* of the sebaceous, plays an important part in the causation and maintenance of the disease. The disease itself in its outward manifestation consists in an increased epidermic production, associated with an augmented tendency to cornification and retention of the cells; hence the epiderm become thickened, hardened, and pigmented—in short, passes through the various metamorphoses that horny tissue usually does when nourished too long.

I have exhibited this patient partly on account of the rarity of the disease and partly on account of his extraordinary family history.

The palms of his hands and the soles of his feet, as well as the flexor aspects of both fingers and toes, were covered with a thick, dense, callous growth about one-eighth of an inch thick when I first saw it, although now considerably modified by treatment. The natural flexion lines are highly exaggerated, and occasionally, especially in winter, deep cracks or fissures are to be seen running in various directions, giving rise to great pain, the pain being due, no doubt, partly to the laceration of the terminal nerve filaments in the rete, and partly to the introduction from without of air or other irritant. A red marginal line of varying depth accurately marks off the affected areas from the healthy skin. The nails are clubbed, and the matrix appears white and pale below. As in ichthyosis generally, the patient improves considerably in the summer, when the sweat glands act more freely, producing thereby a more unctuous and, therefore, more natural condition of epiderm. The rest of his skin is perfectly normal, and, as a rule, he perspires quite freely. It is rather anomalous, however, that we should have an ichthyosis localized so exactly to the palms of the hands and the soles of the feet, since these are the very parts along with the face and flexures generally which almost invariably escape in even the most diffuse forms of this affection.

With regard to family history, our patient knows nothing of his ancestry beyond his own parents. His father suffered severely from this complaint, whilst his mother was free. Of his parents' seven children the first two were boys, and both were affected; the next, likewise a male, was free; the next two were sons, and both were affected; the next, a daughter, was free; whilst the last, our patient, was affected.

This family are now all married and all have issue. Of the eldest son's family numbering six, the firstborn, a daughter, is free, whilst as to the rest, four boys and one girl, all are affected. The second son has only one child, a boy, and he is affected. The third son, who is himself free, has two boys and two girls, and all are exempt. The fourth son has one boy free and two daughters affected. Of the fifth son's family, three are free, two affected. The sister's family, consisting of three girls, have all escaped. Our patient has two children, a boy and a girl, and both are affected.

From this we observe that of the 31 immediate descendants of the father 17 are affected, whilst 14 are free. It is interesting to note, too, that the son and daughter of the first family, who offered sufficient personal resistence to the hereditary tendency to escape the disease, seem also to have begotten in their offspring enough strength to ward off from themselves the disease. Of the 17 descendants of the affected portion of the first family five only have escaped.

Unna records a series of such cases running through three generations, whilst Dale, of Ilkestone, publishes a similar series through five generations.

This disease is congenital as a rule, but may be acquired. It is usually not observed at birth, but appears shortly after. Some time ago this patient's wife was confined of a little daughter, and although manifestations of the complaint were carefully watched for, none were apparent till about a month, when some vesicles appeared in the neighbourhood of the thumb and thereafter in the palm.

The vesicles burst; the skin became rough, and now the disease is very evident.

Two forms of acquired ichthyosis are described by Hebra:—

1. Tylosis palmæ manus plana, where the callosity appears more or less plane, as in our case; and
2. Tylosis palmæ manus verrucosa, where the epiderm assumes a spinous or warty form; in short, the hystrix form of ichthyosis.

These acquired forms seem to come on without any apparent cause, and after remaining for a time—a year or so—often spontaneously disappear.

Treatment.—The indications are:—

1. Remove the hypertrophied epiderm until we reach the neighbourhood of the formative cells; and then
2. So act on the new epiderm that it will be produced in physiological quantity and quality.

To fulfil the first indication such an application as resorcin is of value—one of the so-called "reducing remedies," which are supposed by the abstraction of the nutrient oxygen supplied to the epiderm by the blood to cause the epiderm to shrivel and dry up; to produce, in fact, a still farther stage of cornification, the ultimate result of which is complete exfoliation of the horny layer. For our purpose here nothing could be better than salicylic acid in some form or other, and probably would be best applied as salicylic acid plaster. For any form of localized ichthyosis those plaster mulls of Unna are most elegant and useful applications. In this case, on account of my patient's clerical occupation, I have used a paint of a 10 per cent. solution of salicylic acid in æther.

With regard to the second indication, viz., the production of epiderm in physiological quantity and quality, whilst our reducing agent will tend to regulate the quantity, we must use some fatty, lubricant substance, *e.g.*, vaseline, lanolin, dilute glycerine or lard to imitate the natural unctuous condition of the skin. To this end my patient has been washing the affected parts with Unna's super-fatted basal soap, which contains about 4 per cent. free oil.

In many instances we might find some of those medicated soaps of Unna sufficient to fulfil both indications, such for instance as the over-fatty salicylic acid or resorcin soap, or the over-fatty soap combining both of these drugs, or the over-fatty marble soap, which acts mechanically, and is especially indicated here.

In all cases perseverance with our remedies is necessary; and by following out treatment on the lines that I have indicated, cures have been effected in even some of the severe congenital conditions.

College-street, Hyde Park,
Sydney, September, 1893.

Dr. Crago said he had seen a somewhat similar case in Woolloomooloo. The family history was similar. The males all had the hard horny skin in the palms, but the females had all escaped.

Dr. MacMurray read some notes on a "Case of Dermatitis Herpetiformis, associated with Hyperkeratosis of the Palms and Soles," and exhibited an illustration of the case. This paper was published in our last issue.

Dr. F. A. Bennet said: We have very great reason to thank Dr. MacMurray for his contribution to a subject which is at once difficult and perplexing. Dermatitis herpetiformis is undoubtedly a difficult subject, and some of our authorities are even now unwilling to recognise it. This case which we have just heard seems to present all the characteristics of Duhring's disease. The polymorphic eruption, consisting of erythematous patches, of papules, vesicles and bullæ, scars and pigmentation, presents a picture which is complete. The paræsthesiæ are what we would expect too. Its course—in the main chronic, with occasional exacerbations—is one of the principal conditions of this malady. Dermatitis herpetiformis is perplexing, not only from the manifold and varying nature of its external manifestations, but also from its affinities to other described diseases. It seems to stand on the borderland of three well-known groups of diseases, viz. - 1. Erythema multiforme; 2. Pemphigus; and 3. The herpetic group generally. It is closely allied to erythema multiforme, for it generally begins as slightly raised, flattish papules, which, whilst they spread at the periphery, involute and become purplish in the centre, resembling an erythema papulatum going on to an erythema circinatum Again, the eruption appears in crops, and is in the main symmetrical, both of which features attach to erythema multiforme. Vesicle and bullæ may appear as an accidental condition in erythema multiforme, but the fact of dermatitis herpetiformis developing with severe pruritus would distinguish it from erythema. Again, in dermatitis herpetiformis, bullæ might be the most predominating feature; and occurring in crops, we have here the essentials of pemphigus, hence confusion has arisen on these grounds. One distinctive characteristic of this malady is that its lesions are grouped and herpetiform; hence, should the prevailing feature of the eruption be vesicles on an erythematous base, we have here the essential conditions of herpes, and error again might occur. Since, however, dermatitis herpetiformis has been differentiated out from amongst its neighbours by Duhring and established as a disease *sui generis*, there are other affections which used formerly to be separately described, which are gradually being brought under its classification, and are, in fact, regarded as phases of this disease. First of all there are those cases which were formerly described under the name of "herpes gestationis," where we have a herpetic eruption breaking out, it may be on the limbs or in the neighbourhood of the umbilicus, either during pregnancy or shortly after delivery. This now is regarded by many simply as a form of dermatitis herpetiformis, modified by the condition of pregnancy. Then again there is that peculiar and highly fatal malady described by Hebra under the name of "impetigo herpetiformis," where we have an eruption appearing on the skin of small yellow, superficial pustules, beginning and remaining as such throughout its entire course, arranged in groups on an erythematous base. Many are inclined to regard this as a phase of dermatitis herpetiformis, the only points to be reconciled being that such are pustular throughout, and that a species of septicæmic infection occurs. When, however, we remember that such cases almost invariably occur amongst parturient women, we at the same time recollect that the puerperal state affords every facility for danger from septicæmia. There is one form of dermatitis herpetiformis which attacks the exposed parts of the body, the face, hands, and it may be the feet, which almost invariably begins in early childhood, and is a spring and summer disease. When we think of these characteristics, coupled with its external manifestations, we are strongly reminded of another affection, viz., xeroderma, or aörophoderma pigmentosum, where the eruption is very similar, attacking the same parts, appearing in early childhood, and being a spring and summer complaint. This xeroderma pigmentosum is now looked upon by many as a form of dermatitis herpetiformis. In the later stages of atrophoderma pigmentosum the skin may become dry and xerodermatous, with papillary and epidermal hypertrophy; and in this we might find another explanation of the condition of the palms of the hands of Dr. McMurray's case, and if this be so, then another link has been forged to bind the two diseases together. Probably, however, the arsenical explanation is the better one of the two. Still another disease, viz., pemphigus pruriginosus is likely to find a resting place under the sheltering wing of dermatitis herpetiformis.

Dr. MacMurray, in reply, said with regard to the nomenclature of this particular kind of disease, as mentioned by Dr. Bennet, he (Dr. MacMurray) was fully aware of it, but he did not think there was any doubt about the case under review.

Dr. Crago read some notes on a "Case of Acute Pigmentation of the Skin."

The **President** said there was one point worthy of discussion, namely, the question raised by the Coroner at an inquest lately held about the responsibility of a medical man informing the police about certain cases.

Dr. Jenkins made a few remarks on a case of pigmentation of the skin, due to metallic poisoning, now under his care at the Sydney Hospital, and intimated that the patient would be exhibited at the next meeting of the section.

Dr. Thring said no doubt this case was one of septic infection. There were certain signs of Raynard's disease, but it was evidently of septic origin. With regard to the question of reporting certain cases to the police, he would like to know whether the Coroner had said anything about the responsibility of the medical man. By reporting did they lay themselves open to an action? There is no doubt the whole question is fraught with difficulties.

The **President** (Dr. Worrall) said: As regards the question of informing the police when a confession of criminal abortion had been made by a patient, he could not sanction such a course. He had attended scores of cases of criminal abortion, and had always held sacred the confidence of the patient. If death were to ensue, then, of course, he would consider it his duty to communicate with the authorities, but not otherwise. If a law were passed to make notification of these cases compulsory, it would have a highly injurious effect. Information would be withheld that would be an important guide in treatment, and medical aid would probably not be called in until the patient was moribund. In addition, as one speaker aptly remarked, the patient might deny the confession and take an action against the doctor for defamation of character. In reference to Dr. Crago's case, Dr. Worrall considered it to be a case of pyæmia, with blood dissolution, to which was due the discolouration of the skin. A virulent form of infection introduced (as was evident from the *post-mortem*) into the peritoneal cavity of a susceptible subject was quite sufficient to produce the described changes in the time specified.

Dr. Rennie said he had had a conversation with the Coroner on the point mentioned by the President, and was more or less of the opinion that medical men should report to the police in certain cases. There was no moral doubt that in the case mentioned a criminal act had been done. The woman had stated to the doctor that she had visited a certain place 10 times in a fortnight, and that she had been sent by the man; but as the conversation had not taken place in the presence of the accused the evidence could not be admitted. If the medical man had reported the matter to the police, the dying depositions of the woman could have been taken, and these persons who were blameable would have been punished. The medical man should remember that he is a citizen, and should assist in putting down crime.

Dr. Martin said there was a good deal in what Dr. Thring had stated about the responsibility of the medical man. Perhaps if the woman had known that the confession would be made use of she would not have made it.

Dr. O'Reilly said that the case in question was a very clear one, and the medical man should have reported it to the police. There were cases where it would not be quite so easy to decide, but there was no doubt the medical men should do their duty as citizens.

Dr. T. M. Kendall presented a number of photos of leprosy cases to the Branch.

LEADING ARTICLE.

REPORT OF THE LEPROSY COMMISSION IN INDIA :—AS TO CONTAGION.

By J. Ashburton Thompson, M.D., D.P.H., Fellow of the British Institute of Public Health.

◆

I.

The gist of this report has been made known, and the conclusion as to contagion to which the Commissioners[*] were led by their prolonged and laborious investigation; it was, that leprosy is not maintained or diffused by contagion. That opinion being contrary to a popular prejudice which dates from antiquity attracted attention; but it was impossible to examine the grounds on which it was based without referring to the report itself. That, however, remained not generally accessible; and the Executive Committee of the National Leprosy Fund having favoured me with a copy several weeks ago, it has occurred to me that a *resumé* of Chapter V might have interest for many readers of the *Gazette*. This I now offer in a much abbreviated form, but still as nearly as possible in the Commissioners' own words.

In the body of the report the Commissioners expressed their opinion in the following sentences, which they italicized :—"*Although they consider*

---

[*] The commission was composed as follows:—English members—Beaven N. Bake, M.D., M.R.C.S., Med. Sup. Leper Asylum, Trinidad; George A. Buckmaster, M.D., D.P.H.; Alfred A. Kanthack, M.D., M.R.C.P. Indian members—Surgeon-major Samuel J. Thomson, M.R.C.S., D.P.H., Bengal Medical Service, and Surgeon-major Arthur Barclay, Bengal Medical Service (deceased, but the conclusions and suggestions were drawn up previous to his death, and were known to be in accordance with his views).

leprosy an infective disease caused by a specific bacillus, and, moreover, also a contagious disease, they are of opinion that there is not sufficient evidence that leprosy is maintained or diffused by contagion; indeed, under the ordinary human surroundings, the amount of contagion which exists is so small that it may be disregarded, and no legislation is called for on the lines either of segregation or of interdiction of marriages with lepers."

They prefaced discussion of the evidence they had collected by drawing attention to the meaning of the words "infective" and "contagious," and by distinguishing their scientific use (to express a general truth) from their clinical use (to indicate an efficient cause), thus :—All modern authorities are agreed that leprosy is an infective disease, that is, caused by a microbe which gets access to the body from without; but diseases due to a pathogenic germ are not necessarily contagious, as, for instance, malaria and pneumonia show; therefore it is necessary always to discriminate between the scientific meaning of the word contagion and the part which contagion practically plays in the spread of disease—two very different things. When it is acknowledged that a disease is infective, all that is asserted is that it *may* spread by contagion; nothing at all is stated as to its actual mode of diffusion, and whether under ordinary conditions transmission by contagion practically does take place. Now, among the infective-contagious diseases remarkable differences exist as to degree of contagiousness, which depend partly on unequal liability of the body to be invaded, and partly on quantity and resistant power (power to exist outside the body in a state of efficiency) of germs thrown off by the diseased subject. The body must be disposed to a disease before it can "take" its contagion; and the higher the importance of predisposition, the lower falls the practical importance of contagion: thus, although tuberculosis is not only infective but contagious, and although the bacillus to which it is due is very widely distributed in a state of efficiency outside the body, yet its chief way of spread is not by contagion. Healthy persons who live in the immediate neighbourhood of consumptives by no means all become infected, but (as Flügge says) perhaps only slightly more of them than would have suffered had their opportunity of becoming infected been less; in fact, it is personal disposition that actually governs the distribution of tuberculosis. Thus a disease may scientifically be classified as infective and contagious, and yet practically and clinically may hardly deserve to be called contagious.

To the foregoing it should be added that in another chapter the Commissioners dealt a farther blow at the hypothesis of heredity, and elsewhere still they remarked that to postulate a very long incubation period (over five years) "practically reduces the influence of contagion to an absurdity."[*]

They then gave at length the clinical facts which they had themselves gathered, and with manifest care to exclude error. In briefer form they were as follows :—

I.—Eight cases were brought forward in seven different towns as proving the contagion theory. As a rule, they concerned hospital or asylum servants. On sufficiently careful inquiry it turned out that three of these persons were not suffering from lepra at all; that four others had been attacked before they were thus exposed; and only one case was clear as to mere possibility of contagion—all other possible causes of leprosy having been left out of account for the moment.

II.—The proportion of cases in which the disease might be supposed to have spread between members of the same family should have been very much greater were contagion the cause of "spread." Husbands, wives and children were alone considered; the parents were healthy at the date of marriage; segregation at any time of the affected person or persons from the rest of the family was positively excluded, only those cases being used in which it was stated that the parties all lived together. Under these conditions 719 lepers were examined at 40 different towns, with whom 1,691 persons lived; and of the latter only 95 were, on examination, considered to be lepers, the diagnosis being doubtful in 17 even of them. Yet, admitting these 17 cases, and allowing to weigh in favour of the contagion theory several other points which might fairly have been decided the other way, only 5·6 per cent. of the 1,691 became lepers. But besides the smallness of this percentage struck on terms most generous to the contagion theory note (*a*) that it still exaggerates the hypothetical risk; for wives or husbands and children were far from being the only people with whom the lepers came into frequent contact; and (*b*) that all other causes of leprosy are disregarded for the moment and left out of account.

III.—The proportion of cases in which a possibility of contagion between husband and wife existed should have been much greater were the disease really contagious. Only those couples were chosen who had lived together, and of whom one had suffered for at least five years—the time actually varied between seven and 10 years. In 37 different localities 381 such couples were examined. Of the 381 healthy persons who thus had lived in the closest of all intimacies with 381 lepers for more than five years, only 25, or 6·5 per cent., were found to be affected. But the number may safely be reduced to 19, and the proportion to 4·9, because in one instance husband and wife became affected at the same time; and in other five, one of the parties became affected at 16, 14, 12, 3 and 2 years after death of the leprous party. But even if these be excepted, still two very doubtful cases are reckoned so as not to overstate the case against contagion; besides, this hypothetical factor is regarded to the exclusion of all other possible causes of lepra in this as in the preceding tables.

IV.—But possibly (for some unknown reason or other) instances of contagion might be found among couples who had lived together during less than five years of leprosy on the part of one party. Accordingly, in 32 different localities, 222 couples were examined, of whom one party had been a leper during less than five years, the average term being three years (extremes six months, four years). Of the 222 healthy persons only five, or 2·2 per cent., became lepers: or if one case, in which husband and wife acquired the disease within six months of each other be excepted, the percentage falls to ·9.[*] It may be assumed that at a future time a proportion of the healthy will become leprous; but in any case the two statements—under III and IV—are strong arguments against an amount of contagion worthy of serious practical attention, as they plainly show that even husbands and wives of lepers do not frequently suffer from the disease.

---

[*] From p. 296; but cf. the following passage at p. 267 :—"In other cases a man will relate that many years ago he came into contact with a leper. Such statements have led some authors to assume a long incubation period for the disease. Now it may be questioned whether it is still possible to talk of contagion after an incubation period, which, in many instances, must have extended over 10 or more years. Whatever view may be taken of this matter, the assumption of an irrationally and disproportionately long latent period is certainly a weak point in any theory of contagion. And it becomes still weaker when it is considered that in case of leprosy the people who presumably have been exposed to the risk of contagion during this 'long incubation period' have lived in an endemic area." Probably the apparent general bearing of this passage ("weak point") will be concurred in by all readers; but the opportunity may be taken to remark that the whole report is often difficult to understand on account of some inexactitude of diction, such as is exemplified in this excerpt from Chapter V. This, nevertheless, seems to be rather more clearly written than other chapters.

[*] 1·8 (?).

V. and VI.—The proportion of asylum officials and of other persons who lived in lazarets under circumstances most favourable for contracting a contagious disease who actually did become affected was too small. At several asylums 69 officials and 35 other people were examined; all had lived in close communication with the leper inmates during (for the most part) very long terms of years, and yet out of the 104 only one, or possibly two (the note of the doubtful case is "fingers and face look a little suspicious, but there is no anæsthesia") have become lepers, that is, less than one or two per cent. Here, again, all other possible causes, besides contagion, are neglected.

VII.—In certain districts and asylums the Commissioners paid special attention to the state of persons who ate and drank with lepers (during unstated periods, but apparently habitually). 212 persons ate with 36 lepers, and 21 of them were found to be affected. But some deductions must be made: seven healthy wives stated that they invariably washed dishes, &c., after their leprous husbands had finished with them, and before feeding themselves, and there was one case in which two individuals became affected at the same time, and five in which the interval between this kind of exposure and attack was very long; so that the numbers are reduced to 205 exposed and 15 affected, or 7·3 per cent. But 7·3 is much above the actual ratio, which is probably more nearly expressed by 5 per cent., even assuming that the spread of the disease among these people depended upon contagion only.

Having completed their account of the data[*] they had gathered the Commissioners proceeded to draw up their report proper, and to formally express the conclusions which seemed warranted to them; they framed their conclusion as to contagiousness thus: "(3) Though in a scientific classification of diseases leprosy must be regarded as contagious, and also inoculable, yet the extent to which it is propagated by these means is exceedingly small." It now only remains to be seen how this was received by the Executive Committee of the Fund to whom it was presented, and who included among them several celebrated men of science.[†] In the first place they referred the report to a Special Committee, which consisted of two lay members chosen by themselves, of two physicians (Sir Dyce Duckworth and Dr. G. A. Heron), and of two surgeons (Mr. Jonathan Hutchinson and Mr. C. N. Macnamara) who were nominated by their respective Royal Colleges. This Special Committee returned the report with a memorandum, in the course of which they said they desired "to express their disagreement with the concluding words of No. 3, that the extent to which leprosy is propagated by contagion and inoculation is exceedingly small, not being satisfied with the evidence offered by the Commissioners for this opinion." But in even so mildly worded a criticism as this only Dr. Heron and Mr. Macnamara joined without reserve. In a separate note Mr. Hutchinson said he did not believe "that segregation would effect anything in diminishing the prevalence of the disease. Compulsory segregation would, I think, involve injustice and entail much social misery;" while Sir Dyce Duckworth, in the course of some indecisively worded sentences, said he was "in agreement generally with the recommendations of the Commission respecting voluntary isolation, and the issue of municipal by-laws regulating the habits of lepers. I know of no trustworthy evidence to prove that a leper in any community is a source of greater danger than is a consumptive patient, &c., &c." The Special Committee's memorandum was returned with the report to the Executive Committee, which consisted of five lay and five professional members. They countersigned the memorandum as a body; but the five professional members (Sir Andrew Clark, Sir James Paget, Sir Joseph Fayrer, Sir W. Guyer Hunter, and Mr. Jonathan Hutchinson) unanimously signed a separate note, in the course of which they said: "We dissent from the opinion expressed in the body of the report of the Special Committee on the subject of the contagion of leprosy, and from the recommendations founded on that opinion. We believe that the evidence of the spread of leprosy by contagion is not sufficient to justify the compulsory segregation of lepers, though the institution of homes in which they may voluntarily reside may be very earnestly advised." Thus at last, also, Dr. Heron and Mr. Macnamara remained alone in their belief that leprosy is maintained and diffused by contagion.

While it appears, therefore, that the Commissioners have not discovered anything at all in support of the hypothesis that leprosy is maintained or spread by contagion, they have materially added to the sum of such observations as those from which a Committee of the Royal College of Physicians in 1867 deduced a similar conclusion to theirs, namely: "The all but unanimous conviction of the most experienced observers in different parts of the world is quite opposed to the belief that leprosy is contagious or communicable by proximity or contact with the diseased. The evidence derived from the experience of the attendants in leper asylums is specially conclusive on this point. The few instances that have been reported in a contrary sense either rest on imperfect observation or they are recorded with so little attention to the necessary details as not to affect the above conclusion." This also was the conclusion reached on a different route (epidemiological rather than clinical) by Hirsch as late as 1881, when his monumental work on Geographical and Historical Pathology began to appear; he then expressed it in the following words: "My conviction is that there is not a single fact which tells decisively and indisputably for the conveyance of the disease by contagion. On the other hand, the facts are very materially against the notion, inasmuch as they entirely fail to accord with our whole experience of the mode of diffusion of the true contagious diseases."

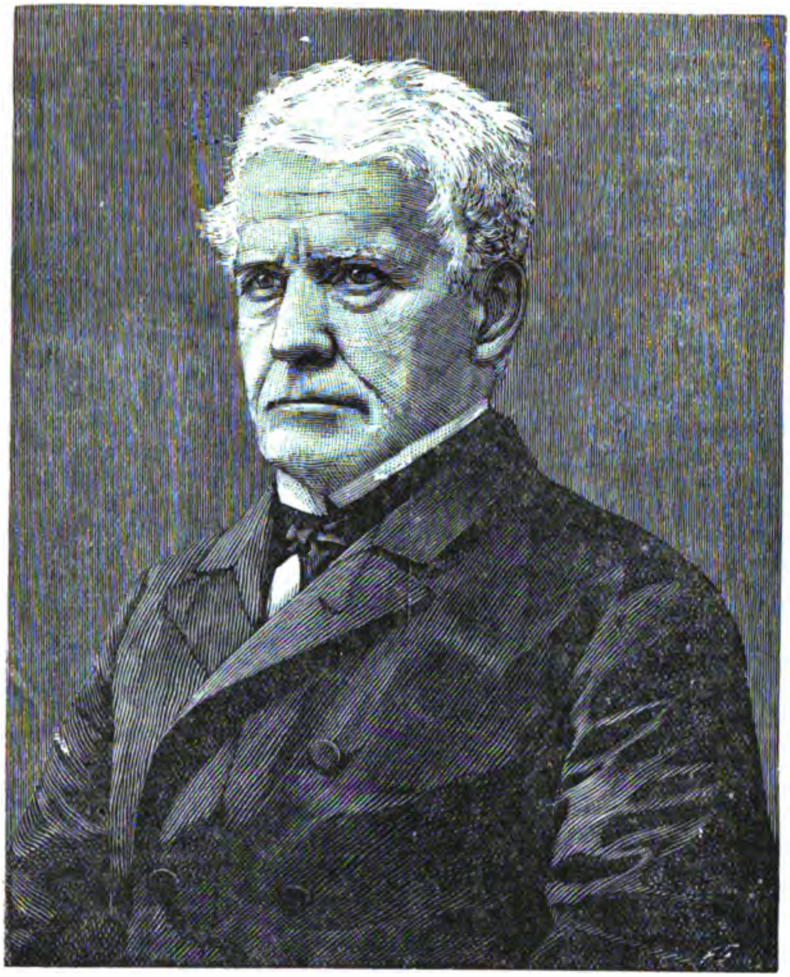
August, 1893.

(To be continued.)

---

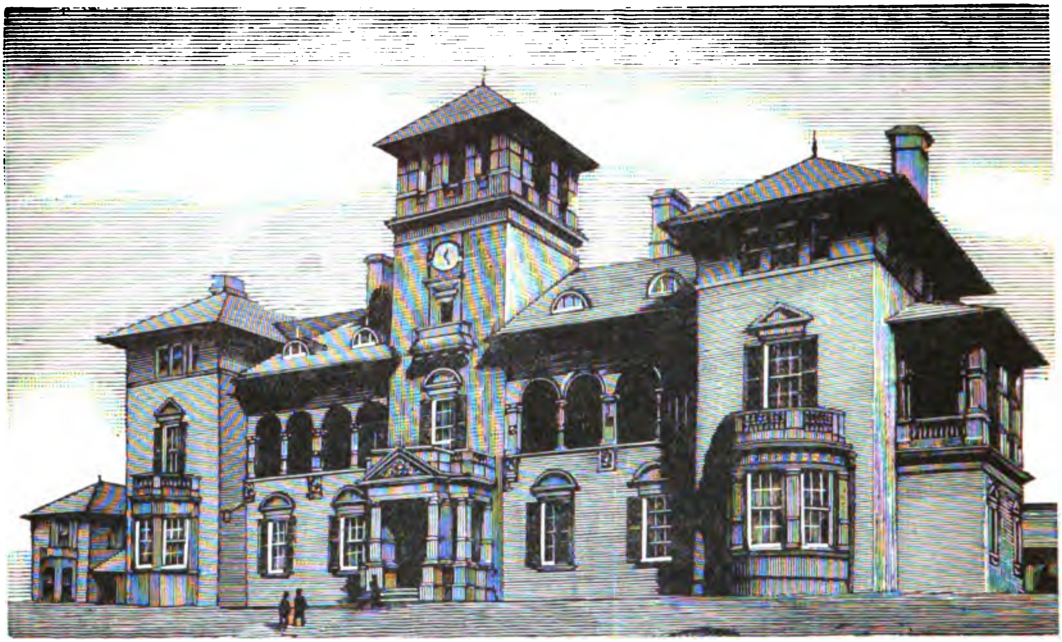
[*] The Commissioners do not classify the cases used by them into tuberous, mixed, nervous, &c. This is a grave omission; for whether it is formal merely, or of practical importance, is probably involved in the question to which answer is here sought.

[†] This would in any case be of importance, since the opinions of the professional members of this Committee are entitled to all the weight which can attach to opinions deliberately formed by competent judges after considering evident facts; but it is now all the more necessary that a leading article in *The British Medical Journal* of July 15 gave an account of this transaction which conveyed an impression widely different from that which I (at all events) had formed after carefully examining the original documents, and which I still hold. Discussion of that article would be beside the purpose; but in as far as its writer attached weight to the agreement of lay members of the Committee in certain opinions, it is necessary to point out that such agreement could but be formal: for the matter of contagiousness in favour of which their concurrence as signatories is cited, is not one of expediency (on which their advice would justly have highest value) but of fact, requiring for its elucidation knowledge of very difficult and even abstruse problems of etiology. Upon the latter the lay signatories themselves would probably be among the first to disclaim intention of speaking, and to resent the use made of their names by the writer of the article referred to.



THE LATE Dr. GEORGE BENNETT, F.R.C.S. Eng.

It is with sincere regret that we record the death of Dr. George Bennett, M.D. Glasg. 1859, M. 1828, F. 1859, R.C.S. Eng., who died at his residence, 167 William-street, Sydney, on the 29th September, at the ripe old age of 89 years, he having been born at Plymouth (Eng.) on January 31, 1804. He arrived in New South Wales in 1830, being at that time connected with a scientific expedition, and his papers, contributed to several scientific journals of the time, attracted some attention. In 1836 he, after visiting some of the South Sea islands, and also taking a trip to England, returned to the colony and settled in Sydney. He built up a large medical practice, but in the intervals of leisure he found time to pursue the study of natural history. Dr. Bennett was the author of "Wanderings in New South Wales, Singapore and China," 2 vols., published in 1834. In the same year appeared his "Notes on the Natural History and Habits of the Ornithorhynchus Paradoxus"; in 1860, "Gatherings of a Naturalist in Australia"; in 1874, "A Trip to Queensland in search of Fossils," and many other works. He was also a contributor to the columns of *The Australasian Medical Gazette*, one of his many contributions being the interesting paper "On Diseases prevailing among the New Zealanders and other inhabitants of the Polynesian Islands," in the issue for October, 1883, of this journal. He was also the first to discover the nautilus in a living state, and Professor Owen has been indebted to him for many specimens of various forms of animal life in Australia. He was one of the founders of the Australian Museum in Sydney, and a scientist of world-wide reputation. He was a Fellow of the Linnean Society, a Fellow of the Zoological Society, corresponding member of the Zoological and Botanical Societies of Vienna, honorary member of the Geographical Society of Rome, Associate of the Imperial Society of Natural History at Cherbourg, of the Royal Society of Tasmania, and Philosophical Society of Liverpool, a Fellow of the Royal Colonial Institute, a member and examiner of the Faculty of Medicine of the Sydney University, and formerly Consulting Physician at St. Vincent's Hospital, Sydney. The deceased gentleman was the oldest and one of the most distinguished medical practitioners in Australia, and, needless to say, highly respected by the general public, his brother practitioners, and leading scientists throughout the world. His life and character may well be summed up in the following sentence from the resolution drafted by Sir Henry Parkes and adopted by the N. S. W. Zoological Society:—"At the age of near four score and ten he closed a useful and distinguished life. His scientific attainments, his special studies in zoology, his many services as a devoted naturalist, gave to his life eminent value, while the urbanity of his disposition endeared him to all who knew him."



THE THOMAS WALKER CONVALESCENT HOSPITAL, NEAR SYDNEY.

◆

The Walker Convalescent Hospital at Concord, on the Parramatta River, was opened on September 21. The buildings have been in course of erection for the last three years, out of the proceeds of a bequest by the late Mr. Thomas Walker, of "Yaralla," Concord, who directed his trustees to devote a sum of not less than £100,000 to the building and maintenance of this institution. The landing place on the river bank is a Dutch water tower, with an archway and waiting-rooms below and smoking rooms and balconies above. The main building itself—a beautiful structure of red brick with stone facings and French tiled roof—is in the style of the Italian Renaissance. In the centre is the administration department, and to the right and left are the two pavilions. The frontage of the administration block alone is 130 feet. Surmounting the building is a tower with a clock facing the river, the tower rising to a height of 80 feet. Passing through the porch we enter the vestibule, from which doors branch off, on the right to the board-room, the surgery, the dispensary, the library and reading-room, and on the left to the matron's offices and other rooms, while just below the entrance, to the right again, is a waiting-room for patients. Above, in the same block, are a number of apartments, such as nurses' and servants' bed-rooms, sitting-rooms, and so on.

At the rear of the vestibule is a corridor running along to the two pavilions, and just across the corridor is a recreation hall 70 feet by 26 feet, with seating accommodation for 150 persons, with a gallery at one end and a deep stage at the other.

Each of the two pavilions, one for male and one for female inmates, has 11 wards, nurses' rooms, reading-rooms, dining-rooms, &c. The hospital is to accommodate 64 patients only; the cost of building and furniture has been about £75,000, exclusive of the value of the 32 acres of ground, part of which has been laid out as a tennis court and bowling green; the yearly expense of maintenance is expected to amount to over £4,000, all of which is provided for by the will of Mr. Walker. Convalescents will be admitted on a certificate by a member of the honorary medical staff, which consists of the medical superintendents of the various metropolitan hospitals, Dr. L. R. Huxtable, of College-street; Dr. Dagnall Clark, of North Sydney; Dr. E. G. Blaxland, of Burwood, and Dr. T. S. Kirkland, of Croydon, all of whom have been connected with the hospital by telephone. There will be no resident medical officer, but Dr. Blaxland and Dr. Kirkland will visit the institution on alternate days.

MEDICAL PRACTICES Bought and Sold. L. Bruck, Medical Agent, Sydney.

RELIABLE and trustworthy gentlemen to act as *locum tenens* or assistants will be sent to all parts of Australia on application to L. Bruck, Medical Agent, Sydney, or P. P. Wilcocks, Medical Agent, Melbourne. No charge to Principals.

AN IMPORTANT WORK BY BURNEY YEO.—*Just Published: A Manual of Medical Treatment or Clinical Therapeutics.* By Burney Yeo, M.D., F.R.C.P. 2 vols., illus. Price 21s., postage 1s. 6d. L. Bruck, Medical Bookseller, Sydney.

BOWRAL.—Resident Patients and Convalescents received by Dr. Wilson.

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, OCTOBER 15, 1893.

EDITORIALS.

DEEP-WATER DIVERS.

A HIGH rate of mortality amongst the divers engaged in Torres Straits has led to some correspondence in the local press at Thursday Island, and a difference of opinion amongst the local medical men as to its cause. It appears that the divers suffer from a group of symptoms, such as shooting pains and formication along the limbs, generally the lower, but also the upper. These symptoms only come on after the diver regains the deck of his lugger, and in slight cases soon pass off. In the more severe, however, complete paralysis of sensation and motion, with constipation and retention of urine, ensue comparatively rapidly, lasting from only a few hours to a few days, and terminating in death. We can hardly agree with a correspondent in the *Torres Straits Pilot* that these symptoms "depend on blood poisoning caused by accumulation of carbonic acid, owing to defective venous circulation, &c.:" "that as the air has to travel 26 fathoms it cannot possibly be pure when it reaches the diver, so that he is really inhaling what he ought to exhale, viz, carbonic acid—causing insensibility without pain." The same writer further states that in one case he had had under observation there had been constipation for 12 days and retention of urine for three days, either the one or the other being sufficient to cause paralysis.

We think the symptoms rather point to an acute ascending myelitis; and this is still further confirmed by the fact that cases which recover from the acute symptoms frequently manifest symptoms of chronic spinal disease at a later period. It is interesting to compare the train of symptoms with those experienced by caisson workers. Long exposure to the atmosphere at increased pressure, such as exists in caissons, and more especially the change to air at ordinary pressure, gives rise to various symptoms which have been well described by Pol and others, and lately collected together under the title of "Caisson Disease" by Dr. Andrew Smith, of New York. "The caisson workers suffer from severe pains in legs, gradually extending up to trunk, associated with gastric pain and vomiting. This is sometimes followed by paraplegia and paralysis of bladder and rectum. Cerebral symptoms, such as headache and vertigo, are also frequently present. The paralysis often disappears in 12 hours, but sometimes lasts weeks. Death generally ensues from coma. Necropses of patients dying from the disease show, according to Van Rensslear, congestion and softening of the spinal cord and congestion of the brain. In a few cases meningitis, both cerebral and spinal, was present, and in one case effusion of blood between arachnoid and pia mater." The symptoms presented by the caisson workers and the divers in deep water in Torres Straits present such close similarity in the time of onset, nature, duration and terminations, and the etiological conditions are so similar that we can hardly doubt that the pathology of the two diseases is precisely the same. If we arrive at this conclusion—and all the facts we are acquainted with are in support of it—then surely the line of treatment advocated by Dr. Pearson can hardly be endorsed; for the method employed in treating a man who was suffering from carbonic acid poisoning, so far from being beneficial, would be positively injurious to one who was suffering from an acute lesion of the spinal cord. In such a case absolute rest, with administration of morphia to relieve the intense pain, should constitute the main elements in the treatment to be adopted in the case of the divers presenting these symptoms.

THE ALLEGED SURGICAL BLUNDER AT THE ALFRED HOSPITAL, MELBOURNE.

UNDER the above startling heading the Melbourne daily papers have maligned the staff of the Alfred and Women's Hospitals, and no doubt done considerable injury indirectly to these useful institutions. It is but another instance of the folly of purely medical matters being ventilated in the lay press. It is but right to state that the Secretary of the Alfred Hospital pointed out that the report referred to did not emanate from the staff, but was supplied by *an individual.*

Dr. Rowan wrote, under date of September 8, to the Committee of the Melbourne Women's Hospital concerning a patient who was under treatment at that institution two months ago. A few days since she had been operated on at the Alfred Hospital for supposed ovarian tumour, and as the case turned out to be one of simple ordinary pregnancy, the reason given by the operator for making such a "dreadful blunder" was that the staff of the Women's Hospital had arranged to perform ovariotomy on the patient. If true, it was, said Dr. Rowan, a reflection on the Women's Hospital Staff, and if false should at once be contradicted.

To this letter Dr. O'Hara, at a meeting of the medical staff of the Alfred Hospital, gave a complete and unanswerable reply. The patient in question two months ago called at Dr. O'Hara's residence and said she had sought advice at the Women's Hospital as she was in great pain, was rapidly losing flesh, and growing weaker every day. She was examined at the Women's Hospital and led to believe that she had a tumour which required immediate surgical treatment. There was no room in the hospital, so she applied to Dr. O'Hara for admission to the Alfred. He examined her and discovered an enlargement in the posterior wall of the uterus and prolapse of the left ovary. The uterus was large, and *he expected pregnancy as a complication.* She was admitted, and it was explained to Mr. Crowther, the house surgeon, as a case of myoma of the uterus *with pregnancy.*

She was treated for three weeks in the recumbent position, but the pain continued. She was evidently going downhill, and begged that something should be done. An exploratory laparotomy was done, and cystic disease of both ovaries (the left one prolapsed) found. The posterior uterine wall bulged towards the sacrum, and presented a white cicatrix—the result of an old rupture. Having satisfied himself the case was one of fibro-myoma of the uterus and cystic disease of the ovaries *complicated with pregnancy,* Dr. O'Hara removed the uterus and ovaries according to Porro's method. Dr. Rudall, who assisted at the operation, concurred; and the nature of the case and the reasons for the different steps undertaken was explained to those around. Needless to say, the following resolution was unanimously agreed to:—"Having heard Dr. O'Hara's statement, and also the statements of the members of the staff of the Alfred Hospital who were present at the operation, the medical committee are of opinion that the correct surgical treatment has been adopted."

Dr. O'Sullivan fully cleared up the case as regards the Women's Hospital staff, at the same time stating they (the staff) did not request Dr. Rowan to write the letter.

Dr. Rowan's action in the affair is somewhat to be regretted. We consider he ought to have consulted with his colleagues before sending the letter, and not at the instance of *an individual.* The expression, *dreadful blunder,* to say the least was inappropriate. Even had pregnancy not been diagnosed Dr. O'Hara would have erred in good company, for the writer remembers a leading gynæcological surgeon at a large London hospital and author of a standard work on the subject much read, even at the present day, who diagnosed ovarian tumour. The patient (a widow) was prepared for operation, and was being conveyed to the theatre when, remorse setting in, she confessed her real condition, and was delivered of a child the same day. The old adage, "*Spargere voces in vulgum ambiguas*" (to scatter deceptive rumours among the people), may well be applied to the "Alleged Surgical Blunder."

MEDICAL BILL FOR NEW SOUTH WALES.

A MEDICAL Bill, introduced as a Government measure on November 26, was passed for the second time by the Legislative Council of New South Wales on December 17, 1891, when it was forwarded to the Legislative Assembly for its concurrence. Pressure of business prevented it being considered during that session, but it was revived under a new standing order in the next one, and was read a second time on October 6, 1892, by 48 ayes to 11 noes. This division, it would have been thought, was of a sufficiently decisive character in favour of the measure as to have been mandatory on the Government to proceed with it, but other business was given precedence, and a second session closed without its having been finally dealt with. The opposition to it was almost entirely kept up by members of the labour party, from what legitimate cause it is hard to say, as it is the class which they so loudly profess to represent which suffers most from the imposition of the quacks and charlatans whose criminal deceptions, at present unrestrained, the proposed law would prevent. At the commencement of the present session it was found that through the inadvertent use of "the" instead of "a" in the standing order, the bill could not be revived under it, as it provides that by a resolution of the Legislative Council any bill passed during "the" previous session may be again forwarded for the consideration of the Assembly. As a session has intervened since the bill passed in the Council it cannot under this order be now reforwarded.

It therefore was re-introduced by the Hon. H. N. MacLaurin, Vice-president of the Executive Council, with some slight modification, on October 5, the most important of which is a provision by which four of the Medical Council created under it will be elected by the medical practitioners, four appointed by the Governor and Executive Council, and only two by the University of Sydney, instead of, as at first, one-half being appointed by the Governor and the other half by the University. It passed its third reading on October 12, and was then forwarded anew to the Legislative Assembly.

It is to be hoped that the members of the Government will realize the obligation imposed on them by the strongly-expressed opinions of both Houses, as shown by the majorities in favour of the bill, to press the measure to its final stage as quickly as possible in spite of the opposition of a few ignorant individuals, the motive cause of whose unreasonable antagonism is not very mysterious if the statements of a prominent quack are to be believed.

MEDICAL BIOGRAPHIES.

An incident of much interest which has lately occurred is the attitude assumed by the Council of the New South Wales Branch of the British Medical Association towards members of the profession, notices of whose career have been published recently by lay newspapers. The two practitioners whose names have come into the most public prominence as a consequence of the appearance of these exceedingly laudatory effusions are Drs. Muskett and C. W. M'Carthy, of Sydney. The former gentleman being a member of the Association, we think the Council acted within its province when the honorary secretary wrote to him to ask if he had "any explanation to offer of the notices of your life which have lately appeared in the *Evening News* and *Sydney Illustrated News*, bearing unmistakeable evidence of having been inspired by you." We believe, however, it made a tactical mistake when it sent a similar communication to Dr. M'Carthy, who does not belong to the Society.

On receipt of the secretary's communication, acting well within his rights, Dr. M'Carthy replied to it in a letter which denied the authority of the Council to call him to account, but, for his own sake, it is much to be regretted in terms, and with a tone which justly leave him open to a charge of discourtesy. In this letter he denies that the biography referred to was inspired by him, but that it reached the papers in which it was published entirely without his knowledge. Of course this denial puts his irresponsibility beyond question.

There is one point in which we very humbly suggest he has grievously sinned against good taste, and that was when he forwarded to the lay newspapers his letter of reply to the communication of the Council of the British Medical Association *before* it had reached the body to whom it was addressed. We submit that he should have awaited any reply that could be made to it by that body, and might then with every fitness have sent the whole correspondence to the public press for general information.

LETTERS TO THE EDITOR.

A QUERY.

(*To the Editor of The Australasian Medical Gazette.*)

Sir.—I desire your opinion on the following case:—A. is Government Medical Officer. B. is Inspector Department of Education. C. is young lady teacher in the same department under B.'s control.

B. calls on A., requesting him to examine C., as he suspects her to be pregnant. C. subsequently comes to A.'s surgery and asks him to examine her, but does not bring any letter from B. or refer to him in any way. A. finds her to be in an advanced stage of pregnancy; on the communication of this fact to C. she demands that A shall keep it a professional secret. B. subsequently calls on A., and as Inspector of Department of Education demands a report as to the condition of C.; this being refused, B. repeats demand in writing. What is A.'s duty under such circumstances, and does his position as Government Medical Officer modify his duty?

I am, Sir, yours, &c.,

GOVERNMENT MEDICAL OFFICER.

[Had C., knowing its contents, brought a letter to A. from B., asking that he would examine her on behalf of the Department by which she was employed, we consider that A. should have made a report of her condition to B., but as in this case C. brought nothing to A. to prove to him that she came at the instance of B., we are of opinion that A. had no choice but to comply with her demand that he should keep her secret. The examination having been made under the circumstances related, B., if he required A.'s report, should have, in his capacity as C.'s superior officer, directed her to obtain it and forward it to him for the information of the Department. This she would have had to do or suffer the penalty consequent on refusal to obey an official order, which we presume would have been dismissal. Under these circumstances it would have been A.'s duty to give C. a report of his opinion on her case, which she might have handed to B. We do not think that the fact of A. being Government Medical Officer has any bearing on his conduct in such a case. —Ed. *A. M. G.*]

A POINT OF INTEREST IN LODGE PRACTICE.

(*To the Editor of The Australasian Medical Gazette.*)

Dear Sir,—A financial member of the local lodge becomes drunk on Saturday night; continues so on Sunday. On Sunday I am called in to his wife and find her suffering from hysterics. Monday morning she is recovered, and I obtain this history:—Till two years ago she was subject frequently to these fits, but had not had one for that period till this occasion. Now, until two years ago her husband had been in the habit of getting drunk, but on joining the Salvation Army had totally abstained till this relapse. Observe the coincidence of dates!

I give my opinion that his drunken fit was the cause of his wife's attack, and claim payment for my attendance under rules 111 and 162 of the Society's rule book.

Rule 111 says: "He (the Medical Officer) shall be bound to attend each member of the Lodge ——, likewise their wives —— in all cases of sickness ——, provided the same is not occasioned by their own wilful misconduct."

Rule 162 says: "If any member receive an accident or become afflicted with any disease while under the influence of drink —— he shall receive no —— medical benefit."

Now, Sir, (1) Is my opinion a reasonable conclusion? (2) If so, do the rules quoted apply?

I may add that the Lodge takes up a perfectly neutral position.

I am, yours truly,
NEW CHUM.

[THE point raised by our correspondent is novel, but we are of opinion that his demand is under the circumstances a reasonable one, as there is little doubt that the wife's illness arose directly from the misconduct of the member, and that therefore the rules relating to the deprivation of benefits apply in such a case.—ED. *A. M. G.*]

THE MONTH.

NEW SOUTH WALES.

The Hon. Dr. MacLaurin, in the Legislative Council on October 5, brought in a Bill to regulate the practice of medicine and surgery and for other matters connected therewith.

Eleven hundred copies of the "Proceedings of the Intercolonial Medical Congress," held in Sydney in 1892, have been printed and bound at the Government Printing Office at a cost to the Government of £608 17s. 2d.

At a meeting of the United Service Institution of New South Wales, held on September 27, Brigade-Surgeon Lieutenant-Colonel Williams read a paper entitled "On the Organization, Equipment and Training of a Federated Medical Service." In the course of his lecture, Brigade-Surgeon Williams said that for a colonial medical service he recommended companies of 50 to 60 each, which could be trained in all branches for field medical requirements in addition to the various duties a medical service was called upon to perform in garrison during a time of peace. By this means of having companies of equal strength in various colonies a general mobilization could be easily effected. An ideal medical service for a federated colonial force could be framed on the basis of each colony having a small permanent medical staff corps sufficient to carry on the regular and daily routine work of a garrison, with a militia medical service of one or more companies supplemented, if required, from the reserve. A short discussion followed the reading of the paper.

Mr. Henry Cheesman, L *et* L Mid. R.C.P. Edin. 1878, M.R.C.S. Eng. 1862, L.S.A. Lond. 1865, who for the last 10 years carried on a cheap dispensary at Riley-street, Surry Hills, Sydney, died on September 30.

Dr. John Shiell Collins, M.D. Qu. Univ. Irel. 1880, M.R.C.S.E. 1881, formerly of Broome (W.A.), died at Sydney on the 16th September.

Dr. J. F. Anderson has returned from his trip to England, and resumed practice at Cootamundra.

Dr. Blackwell, of West Maitland, has taken Dr. A. M. Gledden, his late *locum tenens*, into partnership.

Dr. H. M. C. Dalton has removed from Gunnedah to Hartley Vale.

Dr. S. A. Dowe has removed from Broken Hill to Wilcannia.

Dr. John Kerr, formerly of the Newcastle (N.S.W). Hospital, and late of Hamilton (Waikato, N.Z.), has succeeded to Dr. Fielder's practice at Wollongong.

Dr. A. J. Neale, late of New Norfolk (Tas.), has succeeded to the practice of Dr. Baber at Goulburn.

Dr. B. A. Newell, late of the Sydney Hospital, is now practising at Forbes.

Dr. A. E. Perkins, late of Teralba, is now practising at Barringun.

Dr. C. Purser, late Medical Superintendent of the Prince Alfred Hospital, Sydney, has been presented by the medical and nursing staff and employés of the institution with a walnut writing table, walnut bookcase, and two photographic groups of members of the staff.

Dr. C. Purser, late Medical Superintendent of Prince Alfred Hospital, has commenced practice at Lewisham, a rising suburb of Sydney.

A farewell banquet was given on September 5 to Dr. R. Rygate, Sen., prior to his departure from Wellington, where he had practised for over 30 years. There was a large attendance. He was also presented with an illuminated address.

Dr. F. J. T. Sawkins has been elected Resident Medical Superintendent of the Prince Alfred Hospital, Sydney, in the place of Dr. Purser, resigned.

Dr. R. Scot Skirving has returned from his trip to England, and resumed practice at 221 Elizabeth-street, Hyde Park, Sydney.

Dr. W. J. Shirlow, late of the Sydney Hospital, and formerly of Inverell, has succeeded to the practice of Dr. J. L. Reed at Neutral Bay.

Dr. G. P. Stanley, late of Kempsey, has settled at Blackheath.

NEW ZEALAND.

Dr. W. Atterbury, late of Hillgrove (N.S.W.) and formerly of the Thames, has succeeded to Dr. Bolger's practice at Akaroa.

Dr. J. Clouston, a recent arrival, has commenced practice at Devonport, a suburb of Auckland.

An ex-attendant at the Seacliff Asylum, Dunedin, has been fined £25 for a criminal libel on the Medical Superintendent, Dr. Truby King.

QUEENSLAND.

Dr. Ernest Johann Rudolph Mohs, M.D. *et* Ch. D. Halle and Berl. 1865, a colonist of 20 years' standing, who had been practising at Charters Towers, Tambo, Thornborough, Toowoomba, Laidley, Croydon, Cooktown, Port Douglas, Muldiva and other places in this colony, died at Cairns, from consumption, on the 14th September.

Mr. George Pearson, L.R.C.P. *et* R.C.S. Edin. 1870, late of Muttaburra, and formerly of the New South Wales Immigration Service, died at Thursday Island on September 9.

Dr. Joseph Haydon Ward, M.D. St. And. *et* L.S.A. Lond. 1853, M.R.C.S. Eng. 1854, a colonist of 36 years' standing, died at Maryborough on the 17th September, aged 62 years.

Dr. H. C. Bowser, late of Roma, has settled at Port Douglas, he having been appointed Surgeon of the local hospital.

Dr. E. H. Byrne, of Dalby, and Dr. H. A. Francis, of Barcaldine, who changed places four months ago, have resumed their old practices.

Dr. J. Rees has settled at Muldiva, the centre of the Chillagoe mining district, 1,050 miles N. W. of Brisbane.

Dr. W. J. Tilley has returned to Warwick and resumed practice after several years' absence.

SOUTH AUSTRALIA.

Dr. Elliot has removed from Morphett Vale to Elliston.

Dr. S. Horneck, of Morphett Vale, has returned from his trip to Europe.

TASMANIA.

Mr. John Samuel Crampton, L.R.C.P. *et* R.C.S. Edin. 1875, Assistant Medical Officer at the Hospital for the Insane at New Norfolk for the past six years, was found dead in his bedroom on October 2. It is supposed that he took an overdose of chloral. The deceased gentleman was formerly Assistant Superintendent of the Newcastle-upon-Tyne City Lunatic Asylum.

VICTORIA.

"**The** Victorian Society for Psychical Research" has just been founded in Melbourne with the object of investigating spiritualism, mesmerism, hypnotism, telepathy, clairvoyance, the appearance of disembodied spirits, and all kindred phenomena. The fee for membership is 10s. 6d. annually. Amongst the members of the first council of the Society are Drs. Jamieson, Symes, Mollison and Webster.

Three hundred and two persons died from measles in Melbourne and suburbs during July and August.

A protest has been lodged by Drs. Reid, Wooley and Dobbin (late Honorary Surgeons of the Castlemaine Hospital), against the appointment of Dr. Hutton to the honorary staff of the institution.

At the Castlemaine Police Court, on September 15, before Mr. Keogh, P.M., Jane Root, a married woman, proceeded against Dr. J. R. Hutton for unlawful assault at the Castlemaine Hospital on March 27 last to recover £50 damages. The alleged unlawful assault consisted of the defendant administering chloroform to the complainant against her will whilst she was an inmate of the hospital, Dr. Hutton being the Resident Surgeon at the time. The evidence of Mrs. Root went to show that she had objected to being chloroformed, but one of the nurses averred that the complainant offered no resistance to the drug being administered. The Police Magistrate said that the evidence had failed to sustain the charge of unlawful assault, and that no force or violence was proved. He therefore dismissed the case, and allowed the defendant costs amounting to £6 13s. 6d. In regard to the claim for the recovery of £50 damages, Mr. Keogh, P.M., declined to proceed with it, contending that he had no jurisdiction.

Dr. W. H. Embling, of St. Kilda (Melbourne), has taken Dr. Donald Cameron into partnership.

Dr. J. W. Martin, of East Melbourne, has received the M.D. degree of the Edinburgh University.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Neale, Alfred James, M.D. Univ. Edin. 1885; M.S. Univ. Edin. 1882.
Hall, Frederick William. L.R.C.P. Lond. 1890; M.R.C.S. Eng. 1890; M.D. Lond. 1891; M.S. Lond. 1891.
Rowland, George Hamilton, L.R.C.P. Edin. 1890; L.R.C.S. Edin. 1890; L.F.P.S. Glas. 1890.

NEW ZEALAND.

Bronté, Alexander, L. *et* L. Mid. R.C.P. *et* R.C.S. Ed.; L. *et* L. Mid. F.P.S. Glas.
Smith, William Martin, M.B. *et* Ch. B. Camb.

SOUTH AUSTRALIA.

Hawkes, John Alison, M.B. Melb. 1892.
Lyons, Harry Sydenham, M.D. Glas. 1885.

VICTORIA.

Boughton, Joseph Guest, L. *et* L.Mid. R.C.S. Edin. 1877.
Edgelow, Samuel Henry, M.R.C.S. Eng. 1877.

WESTERN AUSTRALIA.

Davis, Somerville B., M.B. *et* M.S. Edin. 1890.
Hosier, Charles Henry Smith, L. *et* L.Mid. K.Q.C.P. Irel.; L.R.C.S. Irel. 1871.
Evered, Arthur Courtenay, L. *et* L.Mid. R.C.P. Edin.; L.R.C.S. Ed.; L.F.P.S. Glas. 1886.

MEDICAL APPOINTMENTS.

Christie, William Walls, M.D. *et* Ch.M. Glas., to be a Public Vaccinator for the districts of New Plymouth and Waitara, N.Z.
Daish, William Christian, M.D. Melb., to be Health Officer for South Melbourne City, Vic.
Fulton, Thomas Kensington James, L.R.C.P. *et* R.C.S. Ed., to be a Public Vaccinator for Wallaroo, S.A.
Harbison, William Henry, L.R.C.P. *et* R.C.S. Ed., to be a Public Vaccinator in South Australia.
Young, Richard Weekes, M.R.C.S. Eng. *et* L.S.A. Lond., to be Government Medical Officer and Vaccinator for the district of Dowling, N.S.W.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

ADAMS.—August 16, at Alphington, Melbourne, the wife of Dr. George T. C. Adams, of a daughter.

ANDERSON.—On the 25th July, at Branxholme, Vic., the wife J. Anderson, M.D., of a son.

BOWMAN.—September 9, at Singleton, N.S.W., the wife of Alister Stuart Bowman, M.B., C.M., of a daughter.

DIXSON.—On September 24, at 287 Elizabeth-street, Sydney, the wife of T. Dixson, M.B., C.M., of a daughter.

HUGHES.—On the 29th August, the wife of Wilfred Kent Hughes, M.B., of Collins-street, Melbourne, of a daughter.

MAILER.—On the 17th August, at North Carlton, Melbourne, the wife of Melrose Mailer, M.B., Ch. B., of a son.

REDMOND.—On the 26th August, at Charters Towers, Q., the wife of Leonard Redmond, M.D., of a daughter.

RYGATE.—August 7, at Grenfell, N.S.W., the wife of Dr. R. G. Rygate, of a son.

SEELENMEYER.—On the 28th August, at Melbourne, the wife of A. F. Seelenmeyer, M.D., of a son.

SMITH.—On the 17th September, at Clare, S.A., the wife of Otto Wien Smith, M.D., of a daughter.

STIRLING.—On the 27th July, at Mount Lofty, S.A., the wife of E. C. Stirling, M.D., F.R.S., of a son.

MARRIAGE.

MALLAM—WARDROP.—July 27, at All Souls' Church, Leichhardt, Sydney, Laurence George Mallam, M.B., M.R.C.S. Eng., of Armidale, N.S.W., to Agnes, eldest daughter of Robert Wardrop, of Mudgee.

DEATHS.

ANDERSON.—On the 4th August, at Branxholme, Vic., E. J. Haxton, wife of John Anderson, M.D., aged 36 years.

HEWER.—On the 18th September, at Blackall, Q., Agnes, wife of Dr. H. J. Hewer, aged 25.

REPORTED MORTALITY FOR THE MONTH OF AUGUST, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhoea.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	311	139	45	10	8	1	...	...	3	13	13	11	8	...	...
Suburbs	275,615	967	346	139	31	18	11	...	...	...	40	34	22	13	...	9
NEW ZEALAND.																
Auckland	31,268	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Christchurch	16,704	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dunedin	23,302	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington	33,786	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...
QUEENSLAND.																
Brisbane	56,075	188	61	26	...	...	11	...	...	3	10	6	6	2	...	2
Suburbs	37,582	139	33	15												
SOUTH AUSTRALIA	329,903	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Adelaide	38,240	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TASMANIA.																
Hobart	34,616	106	62	15	...	...	1	4	...	1	5	8	5	2	...	...
Launceston	22,307	63	43	10	...	...	...	...	1	...	2	3	7	4	...	...
Country Districts	98,006	286	73	...	...	...	2	1	2	2	5	...	...	...	...	..
VICTORIA.																
Melbourne	71,881	135	88	300	116	1	1	1	2	3	75	109	51	32	5	9
Suburbs	417,304	1,287	622													
WESTERN AUSTRALIA*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR AUGUST, 1893.

STATIONS.	THERMOMETER. Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.	Mean Height of Barometer.	RAIN. Depth.	Days.	Mean Humidity.	Prevailing Wind.
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. ; Long. 138° 36′ E.	...	...	...	...	...	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	...	...	...	...	...	..	...	-
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	78·5	61·6	41·7	30·172	4·44	15	76	...
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	...	...	...	...	...	...	..	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	...	...	...	...	...	...	...	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	64·	50·8	41·	29·899	1·55	9	71	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	64·5	49·3	29·	29·903	4·03	12	72	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	65·5	51·4	33·5	30·039	1·709	16	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	...	..	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	72·4	55·2	42·8	30·221	2·08	14	79	...
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° 47′ 25″ E.	...	...	...	...	...	...	...	...	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

MULTIPLE NEURITIS AMONG CHINAMEN IN SYDNEY.

By James Graham, M.A., M.D.

Peripheral neuritis of the hands and feet is a common affection among the Chinamen in Sydney. In the summer months especially the hospitals are seldom without several cases of it. It is at times so prevalent that it would almost appear as if we had to deal with an affection which was endemo-epidemic. The malady shows itself by a peculiar combination of motor, sensory and trophic phenomena in consequence of morbid changes in the peripheral nerve trunks, and is remarkable for its multiplicity and marked symmetry. The type of peripheral neuritis that these Chinamen suffer from is somewhat gradual in its onset and chronic in its course. Such conditions naturally favour the limitation of the disease to the tissue elements primarily involved. The symptoms on the whole are mild, especially when compared with those acute cases often seen in alcoholic subjects, or as the result of the poisonous action of certain metallic substances, or in beri-beri, where the neuritis is due to the action of a specific organism. I have not known any case to prove fatal, and some patients who have been discharged as cured have again come under notice with all the symptoms of a fresh attack. It might be added that they had returned to their former conditions of living—hygienic and dietary.

It is convenient for the purpose of conciseness to speak of this disease as having three stages:—

First—The stage characterized by numbness and tingling, paræsthesia of various kinds, œdema, and a slight elevation of temperature.

Second—The stage of progressive muscular weakness and a sense of fatigue, passing into a variable degree of paralysis of the muscles that move the hands and feet.

Third—The stage of slow recovery.

It is not often that we see the trouble in the first stage, as the hardy Chinamen only calls for medical aid when he is actually forced to. It is in the second stage that he begins to think that there is something wrong with him. He commonly first experiences a sensation of tingling and burning in the toes of one foot. It is in the morning on awaking that he has this feeling, and it passes off on his getting about, to re-appear on the following morning. In a few days' time he feels the same in the toes of the other foot. It is always in the lower extremities that the trouble first begins; it does not extend to the hands until later, and the upper extremities are occasionally found to escape. He next complains of tenderness in the soles of his feet, and a tight feeling in his legs, especially about the calves. The legs are tender to the touch; they have a hot feeling, and there is often some puffiness over the tibiæ. While there is obviously some œdema, the contour of the leg is retained; there is no pitting on pressure; the whole of the tissues from below the knee seem tense and elastic, and the limb "hide-bound." The temperature at this stage is generally slightly elevated, and there is occasionally found some cardiac distress. The heart trouble apparently depends on the vaso-motor disturbances, and is soon over without any apparent permanent damage. In beri-beri heart failure is a striking feature, and peripheral paralysis of its special nerves is the most frequent cause of death. It is interesting to note in connection with the heart condition in this disease that Nothnagel has recorded a series of cases of angina pectoris where the earliest symptoms were those of numbness and stiffness of the legs.

Types of peripheral neuritis are sometimes classified according to the outstanding symptom that characterizes them. Thus we have the sensory, motor, and tabetic forms. All these are to be observed in this class of multiple neuritis, the motor being the most common. It is sometimes difficult to distinguish whether the gingerly gait so often seen arises from the reluctance of the patient to freely move the limbs for fear of provoking the pain, or from his inability to do so from motor paralysis. The tactile sensibility is indistinct, the cutaneous reflexes may be normal, but the patellar tendon is always abolished, no matter at what stage the patient is seen.

The tenderness of the skin and muscles may be more extensive than the motor paralysis, and varies much in degree. The patient sometimes complains of boring pains in the bones and joints, especially in the knee joints. The hyperæsthesia may be very acute while the paralysis is very slight, and *vice versa.* While it precedes the weakness it is the first symptom to disappear in the stage of recovery. The sensory disturbances in the lower extremities are sometimes observed to be extensive and severe in the feet and legs, yet they may be confined to the tips of the fingers in the upper extremities of the same subject. It is in the soles of the feet and the palms of the hands that the hyperæsthesia is most marked. As the disease persists, the loss of sensation becomes marked, but it rarely passes into the stage of complete anæsthesia. The motor paralysis comes on gradually. The patient first complains of muscular weakness and a sense of fatigue; his legs are "too muchee tired," as he puts it, and he feels inclined to sit down or lie about and rest. The symptoms persist longest and in greatest degree in whichever limb is first affected; the distal extremities—the fingers and toes—especially show the morbid changes in the most marked form. The first sign of motor loss is the inability to move the toes from the ground, so that the flexors of the ankle joint and extensors of the toes are the muscles that are first involved. This produces a certain degree of "foot drop," which is apparent when the patient assumes the recumbent position. To what extent other groups of muscles are affected is not easy to determine, as the general tenderness of the legs often prevents the ordinary electrical tests being applied. I have not seen a case among these patients where the paralysis was complete; locomotion, though distressing and often very awkward, is generally possible. In the hands, where the affection is never so severe as in the feet, the symptoms are much more easily mapped out. The patient will often point to three and a-half fingers, and say they are numb. This corresponds to the distribution of the radial nerve; the remaining one and a-half, supplied by the ulnar nerve, are commonly unaffected. The degree of paralysis is usually slight, and is the same in both hands. I have seen one case where the paralysis confined itself to the thumb in each hand.

There is some slowness in extending the fingers and flexing the wrist, pointing to the implication of the posterior interosseous branch of musculo-spiral. The patient can abduct and adduct his fingers so that the ulnar and median nerves appear to escape. There is a general feebleness of grasp, but the "wrist-drop," so common in the lead and alcoholic cases, is not observed in this particular group. Changes in the electrical excitability of the affected muscles are observed, though often not in any marked degree. From the earliest stages of the disease there is diminution or absence of the Faradic irritability, and the formula of degenerative changes is developed later by the employment of the galvanic current. The ataxic form resembles that seen in tabes dorsalis. It occurs also in alcoholic cases, and specially in those patients where the peripheral neuritis is due to the absorption of poisonous doses of arsenic. It has been called "pseudo-tabes," and the absence of the patellar tendon reflex, together with the pains in the legs and joints, strengthen its resemblance to locomotor ataxy. Charcot pointed out that the ataxic gait in peripheral neuritis was to be accounted for by the patient lifting his legs high with the object of getting the toes off the ground. It is more probably due to the changes which occur in the sensory nerve plates which are chiefly concerned in the process of co-ordination. The distinction rests in the peculiar symmetrical localization of the affection, the hands and feet being alike involved. Some of the other symptoms of true tabes are absent, viz.:—The eye symptoms; the girdle pain; the "crises," gastric and vesical; the altered enervation of the sphincters; the joint affections. The presence of any actual symmetrical paralysis in the extensor muscles would tell against the diagnosis of locomotor ataxy, as there is no actual loss of power in tabes. The distinction between locomotor ataxy and the so-called pseudo-tabes may be difficult to make out, especially in those cases where the inco-ordination is moderate, and where there is some unsteadiness in walking; but as has been pointed out, "if all the symptoms are considered separately for their individual value, and conjointly for their associated significance, it is not often that the observer will remain in doubt." Acute ascending paralysis, polio-myelitis, anterior subacuta, pachymeningitis, and diffuse myelitis, might also be simulated in some of their symptoms by multiple neuritis, and are to be differentiated by the general principle just enunciated. The diagnosis will rest on the history of the case, on the character of the motor and sensory symptoms and the correspondence in function and distribution of the parts affected. The muscles of the affected limb usually become soft and flabby, but the wasting does not seem more excessive than what would naturally be expected in any group of voluntary muscles whose function had become arrested for any length of time. In some recorded cases of peripheral neuritis, where the affection terminated fatally, the muscular fibres exhibited an increase of their nuclei, a fatty degeneration of the sarcous elements, and a progressive atrophy proportionate to the destruction of the nerve plates. Peripheral neuritis of the multiple and symmetrical form is known to depend on the action of certain specific agents. There is a number of cases where the causes that operate in producing this condition are obscure, though their selective mode of action is still the same. In each case there is the manifestation equally of a peculiarity in the acting virus and in the structure acted on. A simple classification is that of dividing them into (1) Toxic, and (2) Infectious cases. Chronic alcoholism, arsenic, lead and bisulphide of carbon are the best known of the causes that produce the toxic forms, and diphtheria, eruptive fevers, malaria and beri-beri comprise the usual infectious cases.

The fact that many nerves are seen to become inflamed simultaneously or in rapid succession—which is the characteristic of this affection—can only be explained by a morbid blood state having a direct influence on the nervous system. Certain known agents, we are aware, have this specific action, such as curara, strychnine, atropia and the like. It has been shown especially in the cases which have no marked acute onset that the nerve fibres themselves are the seat of the primary inflammatory process, the connective tissue and nerve sheath being involved secondarily. The morbid blood state as the casual factor explains the symmetry, as the like structures on each side have the same characteristics, and therefore stand an equal chance of being affected in a like degree, which experience shows us is the case. In neuritis of an isolated character there may happen to be a morbid blood state present, as in gout; but in such a case the neuritis is determined by a local cause, which primarily involves the connective tissue and sheath, the nerve fibre being affected secondarily. To express the difference in a well known and clear formula it stands thus: "Symmetrical multiplicity means a blood state acting alone. Irregular multiplicity means a constitutional state, combined with local determining causes." In endemic cases, especially in beri-beri, the specific organisms always found in the blood have not been found in special association with the morbid process in the nerves. Winkler, in his observations on beri-beri, found the organisms in the blood of many persons living under the same conditions as the beri-beri patients. They were not obviously ill, and had no symptoms of multiple neuritis. The explanation given was that probably the special nerve phenomena were caused by the action of some chemical product of the growth of the organism which was generated slowly. Such a theory would explain the paralysis which may often appear after the patient has seemingly recovered from diphtheria, or those cases that are occasionally seen to follow typhoid fever; and possibly also the cases of alcoholic paralysis might result from some form of poison generated by the altered tissue changes induced by the action of the alcohol. The fact that in most of the cases examined the peripheral nerve fibres alone have been found involved, points clearly to the direct cause being the lowered vital activity of nerve cells. The nerve fibres are really a prolongation of the nerve cells, and depend on them for their vitality; and it follows that the power to resist the action of morbid agencies would be less at the periphery, the point furthest from the vital centre. The changes in the nerve fibres are most intense in the peripheral parts of the nerves, and the further from the periphery the less the change. No structural changes as a rule are found in the spinal cord in this affection. In the forms due to chronic metallic poisoning the upper extremities suffer most and in greatest degree. In lead poisoning the acute paralysis is limited to the arms. In cases where the arms and legs are affected simultaneously, metallic poisoning as a cause would be unlikely. Why certain nerves should be selected in the arms in these particular cases is a feature of the disease that is still unexplained. It is suggested that it is not a peculiarity of position alone, but probably some deeper and functional relation and position among the nerves of the body. The same remarks also apply to the homologous nerves of the legs, which are the first to suffer in many cases. In cases arising from metallic poisoning the paralysis may be profound and yet completely localized to a group of muscles. In toxæmic cases, where the symptoms are often very acute, the palsy may become widespread and diffuse, attacking the general surface of the body, affecting even the periphery of the nerves in the heart and the nerves of the diaphragm. This is specially characteristic of beri-beri, a disease known to have existed for centuries past among the Chinese. Its chief symptom is symmetrical peripheral neuritis, which occasionally develops with extreme rapidity and severity, and is often fatal.

It begins with a sense of heaviness in the legs and readiness of fatigue. Hyperæsthesia and a diminution of tactile insensibility soon follow. The heart becomes violently excited and soon shows signs of dilatation and failure. There is often œdema of the legs along the tibiæ, and dropsical effusion into different serous cavities. The reaction of degeneration in the extensor muscles can be obtained soon after the disease has manifested itself. There is a form of beri-beri which is much more chronic in its course. It is spoken of as the dry form in contra-distinction to the acute type, where effusion is common. The dry type may persist for months. It thus bears a striking resemblance to the other forms of peripheral neuritis already referred to. The specific organism found in beri-beri has been cultivated, and the fact that the disease could only be induced after repeated inoculations strengthens the view that the special symptoms are caused by some form of poison, the product of the growth of the organism. There seems to be little doubt that the type of peripheral neuritis so often seen among the Chinamen in Sydney is toxæmic in its origin. It is not possible to say what the special poison is; one naturally thinks of the dry form of beri-beri, but on the other hand, why should there be an entire absence of the wet type, which is so common in the countries of its special habitat? I have carefully sifted the evidence for the theory that it is dependent on the effects of opium smoking, and I can find nothing to support it. The patients live as a rule in damp, badly ventilated houses, and the staple article of their diet is rice. In this connection it may be stated that epidemics of beri-beri were formerly common in the Japanese navy, but now it is almost unknown. Its disappearance is attributed to the recent improvements in the diet of the sailors and in their naval hygiene. One severe epidemic was attributed to the rancid state of the rice on which the men were chiefly fed. "The facts," says Gowers, "that the nature of toxæmic causes is to a large extent unknown, and that the poison may be acquired from without, make it necessary to be prepared to find the cause of multiple neuritis under almost any circumstances."

CASE OF TREPHINING.

By Æneas McDonnell, M.B. et Ch.M. Syd., Hon. Surgeon to the Toowoomba Hospital, Queensland.

◆

April 7, 1893.—T. M., *æt.* 26, was admitted to the hospital suffering from an injury to the head. Some hours before he had jumped on the back of a young horse without a saddle, and the horse bolting, threw him so that he struck a post with his head. Being some 15 miles away, and roads in a bad condition owing to floods, six hours were spent in bringing him to town.

I saw him at once, when a large lacerated and contused wound 3½ inches long, extending from the left parietal eminence to about the edge of the hairy scalp forward and slightly downwards, was found. The temporal muscle was freely exposed, but I could not detect any bare bone, and no depression was to be felt. There was considerable œdema of the scalp. Patient was restless; answered questions when spoken to sharply, otherwise only moans; pupils equal, slightly contracted, but acted sluggishly to light; is constantly frowning; wound was cleansed; edges posteriorly, where cut was cleaner, were adapted with sutures, and the more lacerated portion was left to granulate.

April 8.—Has had a very restless night; attempted to remove bandages; has succeeded in getting out of bed, and walked to the lavatory; passes water naturally; is constantly muttering and groaning; has to be watched carefully; well-marked ecchymosis round both eyes, especially the left; œdema of scalp less. On dressing the wound patient struggles, and attempts to strike all around him; tongue very dirty; is apparently unconscious, but when spoken to sharply attempts to reply, but fails to finish sentence; pupils same as yesterday; takes milk diet from a feeder, but does not attempt to swallow until spoken to loudly and roused up.

Next day (9th) condition much the same; tongue is very thickly coated; breath very foul. The following day (April 10) I did not see him till late in the afternoon, when he was in a state of stupor, quite unable to be roused; pupils slightly dilated; do not react to light; very little conjunctival reflex; decided upon immediate exploratory operation, with a probable trephining.

Very little chloroform was required, and on opening the wound a linear, non-depressed fracture was found, beginning just about the parietal eminence and running forwards. On extending the incision, the fracture was found to pass over to the frontal bone and right to the supra-orbital ridge just above the external angular process, no doubt passing into the lachrymal fossa and sphenoid fissure, thus accounting for the deep-seated ecchymosis of the orbit. The length of the fracture from its posterior end to the supra-orbital ridge was 5¼ inches, and its edges were darkened with blood, evidently from within the skull.

I applied the trephine about an inch anterior to the posterior end of the fracture; on removing the circle of bone a large blood clot bulged into the opening. This was carefully scraped away with a director and forceps, the director being bent and passed under the bone on all sides carefully for about one inch. The dura mater was then irrigated with a mild boracic solution; but as the clot seemed to extend along the whole length of the fracture, I again trephined two and a half inches anteriorly along the line of fracture. Here the blood clot was, if possible, thicker. I proceeded the same way in this place, removing as much clot as possible, and passed a bent probe under the bone from one opening to the other. The total area of clot was at least five and a half by about two and a half inches, and a little more than one-third of an inch thick in places.

After irrigating the whole I found the dura mater intact, the brain pulsating, and now the pupils reacting to light. I thereupon closed the wound as well as possible, so as to cover the two openings, and passed drainage tubes into each. The whole was then covered with powdered boracic acid and iodoform, and a cap applied. The after history was uneventful.

Next morning the patient was extremely anxious to get food, though for some days he did not seem to know where he was. The wound healed rapidly, and on May 16 he was discharged in perfect health, and has been so ever since.

He tells me he had no recollection of anything from the time the accident happened till about 10 days afterwards.

This case requires no comment. The circles of bone showed grooves of branches of the meningeal arteries. I am inclined to think not only were several branches of the artery torn across, but that the main trunk of the anterior meningeal itself was also ruptured.

This is the second case during the past 12 months in which I have trephined for injury, both, I am glad to say, being successful at the time and in the after results.

NOTES OF 800 CONSECUTIVE MIDWIFERY CASES.

By Arthur Andrews, M.R.C.S. Eng., Government Medical Officer, Albury, New South Wales.

◆

The following brief notes of my last 800 midwifery cases may interest some of our city *confrères* as showing the class of work falling to a country practitioner. The mortality, especially among the children, appears high, but the circumstances under which the cases are attended must be considered in this connection: In most cases aid is not requested till considerable delay or other untoward occurrence has shown the case to be dangerous; distance from home, even up to 70 miles, causing further delay. No proper nursing in the great majority, and therefore no real asepsis; almost total absence of professional assistance, even in difficult cases, where chloroform must be administered.

The 800 labours consisted of 264 primiparæ and 536 multiparæ; 17 were twin births, making in all 817 children born. Of these, 57 were either born dead or died within an hour; 14 from premature birth; 17 putrid when delivered, and 26 from other causes: as four in cases of placenta prævia; three eclampsia; two prolapse of funis; two ascites; one anencephalic; four craniotomies; and three in one patient from delay in birth owing to great size.

Nine mothers died, two primiparæ and seven multiparæ, from following causes: (1) Measles, third day. (2) Exhaustion following placenta prævia (having had free hæmorrhage one week before being seen); lived till seventh day. (3) Exhaustion seven hours after delivery, following constant vomiting during whole of pregnancy, and not seen till within half an hour of delivery, when practically moribund. (4) Metritis, eleventh day after delivery of putrid fœtus; three days in strong labour before seen. (5) Severe post-partum hæmorrhage; embolism. (6) Metritis, eighth day. (7) Double pneumonia; twin birth; lived seven days. (8) Placenta prævia; much loss, and never rallied; died fourth day. (9) Eclampsia, followed by congestion of lungs and brain fifteenth day.

There were 87 cases of abnormal presentation, as follows:—Breech, 16; footling, 18; face, 8; face forwards, 27; shoulder, 8; side, 1; hip, 8; back, 8; head and arm, 2; prolapse of funis, 4; hands, feet and funis, 2; head, hand and funis, 2; shoulder and funis, 1; arm and funis, 2.

Placenta prævia occurred 15 times—complete, 6; partial, 9. Accidental hæmorrhage, 2; concealed hæmorrhage, 1.

In 33 cases the placenta was more or less adherent, and required removal by the hand.

In 29 cases post-partum hæmorrhage was noted, but only severe in 7. Nine cases of eclampsia with 1 death.

Other complications were:—Epilepsy, 3; mania, 2; fibroid of uterus, 2; partial occlusion of vagina, requiring incision, 1; febris rubra, 1; measles, 2; abscess of liver, 1; morbus cordis, 6; ascites, 2; imbecile, 1; metritis, 4, with 2 recoveries after laparotomy and free drainage; large spina bifida requiring incision to permit delivery.

74 primiparæ required forceps—28°/o
47 multiparæ „ „ = 11·4°/o

Version was practised in 52 cases for various reasons; craniotomy, 4 times—twice in one patient with narrow pelvis. Rigid os delayed labour considerably in 5 cases, and hourglass contraction is noted three times.

The following deformities among the children were met with:—Anencephalic, 1; absence of abdominal wall, 1; epispadias, 1; hydrocephalus, 2; spina bifida, 2; talipes, 1; harelip, 1; cleft palate, 1; absence of tongue, left forearm and fingers of right hand, except rudiment of little finger and thumb, 1.

The cases of post-partum hæmorrhage were treated by compression of the uterus, administration of ergot, hot water injections, and in one case perchloride of iron with good result. Hæmorrhage was rarely troublesome when the uterus was followed down immediately after birth of child.

In the cases of eclampsia, chloral hydrate and chloroform were generally relied on; but in three cases bleeding was practised, also with good results.

Antiseptic injections were used when possible where instruments were required or the hand introduced.

Instances of great delay were noted as follows:—In labour and all urine retained, 96 hours. In labour 3 days with crossbirth before coming 12 miles into town in dray, twice in same patient. Primipara, 20 miles out, in labour 4 days before sending, and held on husband's lap 36 hours previous to arrival. Two cases of placenta prævia with hæmorrhage for a week before sending.

Such delays are usually owing to the dense ignorance of nurses, coupled with their desire to get the case over without calling in a doctor.

CASE OF SNAKEBITE.

By G. L. L. Lawson, M.R.C.P. Edin., D.P.H., Government Medical Officer, Gosford, New South Wales.

◆

About six p.m., October 11, 1893, Randin Andersen, aged 24 years, of Wamberal, was supposed to have been bitten by a snake. He was working at a bench, mending a saddle, when he felt something knock against his leg. He thought he had trodden on a stick which had bounced up and hit him. He went on with his work, thinking no more of the occurrence until a quarter or half an hour afterwards his leg felt sore and he partly swooned. Then the idea occurred to him that he must have been bitten by a snake. He tied a ligature tightly above the knee. He then told his employer, Mr. Aubin, who examined the leg and found two punctures on the outer side of the right leg, about six inches above the ankle, which he scarified and made bleed. About 7 p.m. he was given whisky or brandy in half-tumblerful doses at intervals of half-an-hour. He drank about a pint of spirit. At 8 p.m. he was given 36 drops of the strongest solution of ammonia in a wineglassful of water. An hour afterwards he was given between 20 and 30 drops of ammonia in water.

During this time attacks of heavy sleepiness came over him about every 20 minutes. In the meanwhile I was sent for. I arrived at the house, eight miles away, at a few minutes to ten p.m. Two men were dragging the patient about the yard, trying to keep him awake. He was moaning heavily. He was pale and cold, with widely dilated pupils, and had vomited once or twice; he was partly unconscious, but complained of pains in his neck and throat. The first ligature had been removed and tied more loosely below the knee. At 10.55 p.m. I injected $\frac{1}{20}$gr. of sulphate of strychnine; at 11.5 p.m. I injected $\frac{1}{20}$gr. of sulphate of strychnine; at 11.15 p.m. I injected $\frac{1}{20}$gr. of sulphate of strychnine. At 11.25 p.m. pulse was 100 a minute—I had not previously taken the pulse; the pupils were more contracted; removed the ligature. Since my arrival the patient had already vomited two or three times; the retching, being severe, was a very distressing feature, and seemed to exhaust the patient. At 11.40 p.m. he vomited. At 11.45 p.m. injected $\frac{1}{20}$gr. of sulphate of strychnine. At 12 p.m. complained of stiffness in the back of his neck—he had previously been holding the back of his head with both hands; he was sitting on a chair—was leaning forward with his elbows at times resting on his knees; a man was beside him to prevent him sleeping. He said he was not so sleepy, but felt sick; pulse fairly strong, 84 beats a minute.

October 12, 12.20 a.m.—Had a mouthful of coffee; vomited immediately, with severe retching; pulse 86 a minute. Injected $\frac{1}{20}$gr. of sulphate of strychnine. 12.35 a m.: Did not feel sleepy. 1.5 a.m.: Injected $\frac{1}{20}$gr. of strychnine sulphate. After this dose patient was quite lively and chatty; this, however, did not continue long, he soon became heavy and drowsy. 1.45 a.m.: Injected $\frac{1}{20}$gr. of strychnine sulphate. About a quarter of an hour after this dose he suddenly became quite lively; sleepiness entirely left him; pulse was good; pupils normal; skin natural colour. He had been well covered up and hot bricks had been applied to his feet.

He now walked by himself, and his chair was placed near the fire. A mustard plaster, which had been applied half-an-hour before for pain in the stomach, was now removed. 2.35 a.m.: He began to smoke, and did not feel at all sleepy. 2.55 a.m.: He had $\frac{1}{20}$gr. of strychnine sulphate by the mouth. 3.30 a.m.: Pule 87 a minute, strong; pupils normal. 3.45 a.m.: He had $\frac{1}{20}$gr. of strychnine sulphate by the mouth. He still continued well. I left him until 6.45 a.m. 4 a.m.: He went to sleep. 4.20 a.m.: He awoke and looked about him for a few seconds, and fell asleep. 4.40 a.m.: He awoke again, drank a sip of milk, groaned, but said he had no pain, and went to sleep. 5 a.m.: He was aroused, and found to be alright; went to sleep again. 6.20 a.m.: He awoke and complained of pain in his neck, and of his mouth being sore. His tongue had one or two raw patches, probably caused by the ammonia. 6.45 a.m.: He had $\frac{1}{20}$gr. of strychnine sulphate by the mouth; pulse 68 a minute. He felt well. I left at 8.30 a.m. He was seen by me at 7 p.m.; has had one or two sleeps during the day, and continued well. He had barley water or milk to drink in mouthfuls at a time during the treatment. During the day he had, in addition to these, about half an orange. I recommended him to take $\frac{1}{100}$gr. of strychnine sulphate thrice during the night of October 12, and a dose of castor oil on the following morning.

A black snake had been killed about a fortnight before a few yards from the bench where the man was working. The supposed snake was not found, but its track was plainly visible up to where the man had been standing. From the track on the ground, and from the two punctured wounds there can be little doubt but that the man had been bitten by a venomous snake. He had been given large doses of brandy and large doses of ammonia. It was somewhat difficult to apportion the respective effects of these antidotes upon the system, the snake poison, and also upon each other. It was not easy to discriminate between the symptoms due to the remedies and those due to the snake poison. He vomited immediately on taking the ammonia. It is also probable that he vomited a large proportion of the spirit. Beyond an occasional burst of excitement I could discern no symptom due to intoxication.

After recovery he said the feeling of want of breath was terrible. He felt as if he would have been relieved by lying down and coiling himself up. He seemed benefitted by the injections. It was astonishing how suddenly he roused up at last.

TWO CASES OF PELVIC HYDATID, CAUSING RETENTION OF URINE.

By F. J. T. Sawkins, M.B., Ch.M., Medical Superintendent, Prince Alfred Hospital, Sydney.

◆

Case 1.—Multiple Abdominal Hydatids—Pelvic Hydatid, causing Vesical Symptoms simulating those of Enlarged Prostate—Death—Autopsy.

On April 10 A. B. W., male, labourer, brought to hospital by police, apparently had no rectal or vesical control. On examination, found to have retention of urine with passive overflow. A soft catheter was passed, and some 35ʒ of urine drawn off. On per rectum examination, a large tumour detected, which was believed to be a greatly-enlarged prostate; also had external hæmorrhoids. On 13th had further urinary trouble, and a catheter could not be passed. Suprapubic aspiration withdrew about 35ʒ of urine again. On all future occasions a gum elastic catheter overcurved on a stylet was passed with ease. In addition to bladder and rectal symptoms, patient complained of inability to walk and pain along the course of the left sciatic nerve. He gradually sank, and died on 15th from exhaustion.

On *post-mortem* examination a large cyst, which contained over a pint of fluid and daughter cysts, was found to fill up the pelvis, pressing on the rectum and bladder. It was attached in front to the base of the bladder, which it invaginated, and behind to the cavity of the sacrum and wall of rectum. The pelvic contents were removed, and on dissection it was found that part of the prostate gland and the vesiculæ seminales were separated from their normal attachment to the bladder, and were closely adherent to the cyst wall. The cyst itself was loosely adherent to bladder, being directly in contact with the muscular layer, and was covered on its upper surface by the peritoneum of the recto-vesical pouch. There were numerous small cysts attached to pelvic viscera and in liver and omentum.

Case 2.—Pelvic Hydatid, causing Urinary Obstruction—Laparotomy—Cure.

May 12.—J. F., miner; 39 years; from Temora; admitted, complaining of difficulty in urination. First troubled three months ago. Has had several attacks of retention of urine; micturition frequent, no pain; no history of gonorrhœa. On admission bladder distended and urine drawn off by No. 7 catheter. The condition of urethra was examined by silver sound, 9-12, and an apparent constriction was detected near the triangular ligament.

On the 15th, under anæsthetic, 12-15 sound was passed easily; per rectum a large cystic swelling was found between the bladder and rectum; on percussion over the pubes, after urine had been drawn off, definite dulness made out; and bi-manually, with finger in rectum, a large cystic tumour could be distinctly felt. Hydatid being suspected, an exploring needle was inserted from the front and clear fluid obtained. Dr. Hankins operated immediately by suprapubic incision, but finding it impossible to reach the cyst, prolonged the incision upwards, opened the peritoneum, stitched the sac to abdominal wall, evacuated the contents, and removed the endocyst. A drainage tube was inserted. Patient had an uninterrupted convalescence and was discharged cured on 23rd of June.

As to the mode of origin of these tumours, Fagge says they arise from the growth of an embyro which has fallen by its own weight into the pelvic cavity after perforating the walls of the stomach.

J. H. Targett, in a lecture delivered at the Royal College of Surgeons of England, affirms that an examination of all the specimens in the London museums shows that these cysts originally start in a plane between the muscular coat of the bladder and the sheath of recto-vesical fascia. This fascia, besides enclosing the prostate and lower portion of the bladder, forms a sheath for the vesiculæ seminales. Hence gradual enlargement of the cyst dissects off from the bladder the vesiculæ, which are thereafter found in connection with the walls of the cyst. This accurately corresponds with the condition found in the specimen obtained from Case No. 1, which is in the museum of the Sydney Medical School. He recommends operation by laparotomy in preference to perineal incision on the following grounds: The diagnosis of the case is apt to be obscure; a much freer access to the cyst is obtained, and it is further away from the sources of septic infection.

CLINICAL MEMORANDA.

A RARE CASE OF FRACTURED HUMERUS.

By J. Jarvie Hood, M.B., Surgeon Lower Clarence Hospital, Maclean, N.S.W.

◆

The following case, being uncommon, may prove of interest.

A. B., a man aged 32 years, came to my house a few days ago, stating that he had hurt his right arm. He had been playing cricket and was "fielding." When returning the ball to the bowler, which same he did rather energetically, he felt "something give way" in his arm, which fell helplessly by his side, at the same time a loud snap was heard.

On examination I found that the right humerus was broken clean across at the junction of the middle and lower third. I believe that only a few cases of such an accident are on record, hence this report.

CASE OF SUPERFŒTATION.

By Arthur Andrews, M.R.C.S. Eng., Govt. Medical Officer, Albury, N.S.W.

◆

I was sent for to attend Mrs. —— in her ninth labour. She lived 36 miles away, and on my arrival at 1 a.m. I found her violently maniacal and in strong labour. She had twice been detained in an asylum, having returned home the last time about 10 months. A few minutes after my arrival she was delivered of a four-months' fœtus, which was born alive with placenta and membranes unruptured. The fœtus moved repeatedly after birth. An hour later a second child was born. Presentation was normal. This child was a fully-developed male, but hydrocephalic, and survived its birth one hour.

The placenta was universally adherent, and had to be peeled off piecemeal. Under suitable treatment the maniacal symptoms passed off, and the patient made a good recovery. I could detect no abnormality about the uterus, nor any indication of duality.

PROCEEDINGS OF SOCIETIES.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

General meeting of the Branch held at the Royal Society's Room, Sydney, on Friday, 6th October, 1893. Present: Dr. Worrall (President), Drs. W. Chisholm, Sydney Jones, Clubbe, Scot Skirving, Crago, McCormick, F. A. Bennet, Arthur, Jas. Dick, Lennhoff, Hankins, Brady, Megginson, Langhorne, West, G. A. Marshall, Fiaschi, Neill, Angel Money, Ellis, Lyden, O'Reilly, Lyon, Abbott, Wilkinson, Thring, A. Jarvie Hood, Edwards, Morgan Martin, C. J. Martin, Sawkins, the Hon. Dr. Creed, M.L.C., and Dr. Jenkins. Visitors: Drs. Lee and Richards.

The minutes of the previous meeting were read and confirmed.

The **President** announced the election of Dr. E. Stokes, of Port Macquarie, as a member.

The **President** gave notice of the following resolution:—"That the New South Wales Branch of the British Medical Association is of opinion that it is in the highest degree derogatory to the dignity, and adverse to the interests of the profession that a medical man should be a party to the appearance of a notice of his life in the public press, or insert any advertisement beyond an announcement of change of address or commencement or resumption of practice."

Dr. Clubbe read some notes on a "Case of Intussusception," and exhibited the patient.

The **President** (Dr. Worrall) said he offered warm congratulations to Dr. Clubbe upon his successful operation for intussusception in so young an infant. He (the President) had often urged the propriety of treating all such cases by abdominal section *directly* inversion and inflation had failed, and before œdema or adhesion had taken place, after which the prospect by any treatment was somewhat hopeless; whereas early operation was easy, and if done with the usual precautions, safe.

Dr. E. J. Jenkins exhibited a patient suffering from permanent discolouration of the skin, attributed to working at the manufacture of sulphuric acid. The patient has been for over 20 years in the same state; but on presenting himself for admission at the Sydney Hospital, he was thought to be in a dying condition, so extreme was the apparent cyanosis. The mucous membranes have also a leaden hue, and the teeth have all dropped out. The patient states that many others in the same works with him were similarly affected

Dr. F. A. Bennet said: I regard this as a case of idiopathic chloasma, which is generally the result of some external irritation. Any long continued irritation of the skin sufficiently strong to induce frequently recurring congestions will eventually lead to pigmentation. For the production of such a condition as we have here before us there were evidently two operative causes, viz., (1) extreme heat, and (2) the irritant vapours and gases generated during the manufacture of sulphuric acid. We are all aware that extreme heat is in itself an efficient cause of pigmentation, whether that heat be artificial, which determines the pigmented condition of the legs of the stoker, or the heat of the sun, which produces the well-known bronzing of sun-burn, or erythema solare, as it is called. Unfortunately I know of no literature dealing with the effects upon the skin of the vapours from sulphuric acid manufacture, but I happen to know that if ordinary sulphuric acid be applied to the epiderm so as to destroy it, the regenerated epiderm will always appear more pigmented than the preceding. This quality the drug possesses in common with cantharides, croton oil, &c., and in this respect contrasts with acetic or hydrochloric acid, and more especially with corrosive sublimate. You will all have observed that the man's hair is pigmented in the same manner as his skin. We are not surprised at this when we remember that the hair is simply a modification of the epiderm, and that the hair shaft is merely the stratum corneum in another form. It is worthy of remark, too, that this universal pigmentation has in no wise interfered with the patient's general health; nor evidently has it at all impaired the functional activity of his skin glands, for he is suffering from another skin peculiarity, viz., seborrhœa capitis, going on to seborrhœa corporis; and this condition is probably nothing more than an exaltation of the natural function of the sebaceous glands. Exposure to extreme cold has also been known to produce general pigmentation of the skin. I have seen several cases of argyria, and I must say that this man's state strongly reminds me of them. The method of production in the two conditions is of course quite different. This I regard as the result of external irritation. In argyria the salts of silver are swallowed, and the metal in a reduced form is supposed to be deposited in the structures where pigment generally is to be found. Arsenic, too, has been known to cause cutaneous pigmentation, but *how*, is undetermined; so, too, picric acid. The man's continued well-being would prevent us from falling into the error of diagnosing this as a chloasma symptomatic of any serious cachectic state such as we find in malaria, or Addison's disease, or any other pathological condition which leads up to general or universal pigmentation of the skin.

Dr. Money said it was a pity that this case could not have been seen in daylight, as it has quite a different appearance under gaslight. It looks, under the gaslight, more like pigmentation by silver fumes, and might be mistaken for argyria.

Dr. Crago said he had noticed an article in Hare's book, stating that the discolouration might be caused by the fumes of sulphuric acid, and also muriatic acid.

Dr. Crago read some notes on a "Well-marked Case of Addison's Disease." The patient was exhibited and examined by the members.

Dr. Sydney Jones said his experience was that Addison's disease was very rare in this colony. He remembered one case which lasted altogether about nine years after it was diagnosed. The patient did not look quite so dusky as this one, but had a more bronzy appearance, and did not lose flesh so rapidly. The patient died while he (Dr. Jones) was in England, and there was no *post-mortem* examination. In this case the patient seems to have lost flesh rapidly.

Dr. Wm. Chisholm said he remembered a case of Addison's disease. The patient suffered a good deal from extreme weakness and vomiting. She had no febrile symptoms. She went to Bowral for two months for change of air, and when she returned she had the discolouration of the skin. He (Dr. Chisholm) had a consultation with Dr. Murray Oram about the case, and after death felt justified in giving a certificate for Addison's disease.

Dr. Thring read the following paper on "Puerperal Infection":—

NOTES ON PUERPERAL SEPTICÆMIA.

By E. T. Thring, F.R.C.S. Eng., L.R.C.P Lond.

It may be thought that in bringing under your consideration this evening, in what must necessarily be a somewhat sketchy and superficial manner, such a subject as puerperal septicæmia, which has of late years been so thoroughly thought out and discussed, that some *reason* should be given. My *reasons* are: 1st. That the subject is one of the greatest importance to us as medical men; for although, theoretically, puerperal septicæmia *ought* not to occur, I think there can be few, if any, in this room who have not at one time or another felt the anxiety caused by such cases in their practice. 2nd. It undoubtedly does good to review the position which we occupy as regards various matters connected with our work, and a discussion on a subject of such importance will probably bring into prominence facts which are new, or at all events enable us to see them from a different standpoint.

I have purposely endeavoured to make my paper as practical as possible, looking at the subject rather from a clinical than a theoretical point of view, and copious references to authors have been intentionally avoided.

For the profitable discussion of such a subject it will be as well, perhaps, to state what we mean by *puerperal fever* or PUERPERAL INFECTION.

It is usually understood to include all those cases in which after childbirth there is a rise of temperature, accompanied by some of the very many signs and symptoms of septicæmia, and *excluding* those cases in which there is a rise of temperature which can be accounted for by some cause as one of the acute specific fevers, an attack of acute tonsilitis, or pneumonia, or pleurisy, or some such illness as may affect any person, quite apart from the possibility that it is due to septic infection introduced from the genital canal.

I am aware that this is a very imperfect definition, which can easily be criticized; on the other hand it is sufficiently precise to form a working hypothesis, and that is all we require for the present time. As coming under the head of *puerperal infection* or puerperal fever, we must, I think, include those cases which follow miscarriage and abortion, as the conditions and subsequent processes are practically the same.

It is now universally acknowledged that these cases are due to the introduction into the body of some poison produced by one or more of the many kinds of septic organisms. This raises the question as to whether there is a specific organism, which is the cause of puerperal fever, in the same way that there is a specific organism which induces diphtheria and no other disease, or as the typhoid bacillus causes enteric fewer, which, in fact, "breeds true." This theory of the specific origin of puerperal fever was at one time widely held, and by men of such standing as Fordyce Barker. The balance of evidence, however, is against this being the case. No one has, I believe, ever been able to obtain a pure culture of the organism of puerperal fever as has been done in several specific diseases.

The clinical evidence also points rather to the fact that so-called puerperal fever is due to the introduction of one or more of the many different kinds of pathogenic organisms, to which the various forms of septic infections or septicæmia are due. The wonderful decrease of the death-rate in lying-in hospitals which has followed strictly asceptic treatment points in this direction.

There is also the direct evidence adduced by Semmelweis that the risk of puerperal infection was greatly increased when those who attended labour cases were at the same time occupied in the dissecting room; and again, the well known case of Dr. Rutter, of Philadelphia, who suffered from ozœna, and by this means conveyed the poison to his patients, probably by direct inoculation. It is scarcely likely that in all these cases there was one specific organism only which induced the disease. Then there is the well recognized fact that there exist usually in the vaginæ of married and multiparous women various forms of micro-organisms, some of which, at all events, are not of a harmless kind, as, for instance, the streptococci and staphylococci. Generally, however, these seem to be in an attenuated form, or at least are unable to gain access to the blood stream through the normal mucous membrane. Given, however, suitable conditions, *i.e.*, wounds or abrasions, however minute, they speedily show signs of their malignancy. And these conditions seem specially provided by the bruising and lacerations which occur even in normal labours, and which mean diminished resisting power of the tissues, and the provision of a medium, *i.e.*, serum at the body temperature, in which the micro-organisms find a very favourable growing ground.

As bearing upon this, it is, I believe, now recognized as a fact that any wound from which micro-organisms of every kind are excluded does not suppurate, whereas any wound which is infected by one or more of the various pathogenic germs as surely forms pus. And as every parturient woman may be looked upon as a wounded woman, the conditions for wound infection are at hand. Even if we could suppose that in a normal labour no lacerations at all occurred, there is still the placental site unprotected for a time by epithelium.

We have also to consider the condition of the tissues as to their power of resistance to the invasion and growth of the before-mentioned micro-organisms. This varies greatly in different individuals. We may, I think, accept it as a fact that *healthy* tissues do not contain any of these organisms; and when they are by chance introduced, there is at once a struggle for supremacy between the healthy tissues and the invaders, the actual details of this process being possibly explained by the lately advanced theory of phagocytosis.

The pathogenic organisms probably act in one or two ways, *i.e.*, (1) *directly* by their interference with the nutrition of the tissues; and (2) *indirectly* by the production of chemical poisons or leucomaines, the effect of which is proportionate to the dose. Of course the usual point of entrance for the poison in parturient women is through some portion of the genital canal; but as a possible explanation of the occurrence of puerperal infection in patients where for various reasons this seems not to be the case, the experiment of Rosenbach is very suggestive.

He fractured a rabbit's leg, and during the process of repair inoculated the animal's ear with a pure cultivation of staphylococcus pyogenes aureus, the result being very little, if any, inflammatory reaction at the point of inoculation; but a marked infection of the tissues round the recent fracture by colonies of the staphylococcus, that is to say, at the point of diminished resistance.

Arguing from this, one can readily understand that it is theoretically possible that the infective material might gain access to the blood stream at some other part of the body than the genital canal, and yet, owing to the bruising and lacerations which accompany delivery, some portion of the genital tract becomes the point at which the poison localizes itself, and from which the infective process spreads.

Associated with the conditions just referred to, the distribution of the lymphatics to the genital canal and pelvic organs is important; and the observations of Dr. Thompson, of Rome, on what he calls "concealed perineal laceration as a cause of puerperal fever," are of interest. He says that he has repeatedly demonstrated the presence of a large lymph lacuna *in* the centre of the perineal body, and he states that it is quite possible to inject fluid into this, and that the fluid will travel along the lymph vessels leading from it up into the pelvis, along the broad ligaments, and form a perfect network of injected lymph vessels lying over the whole surface of the uterus beneath the peritoneal covering. Now it frequently happens that although there may be no external laceration of the perinæum, there is a tear just within the fourchette, involving the lower part of the posterior vaginal wall, and, in fact, the antero-superior portion of the perineal body. In the dorsal position a little pool of lochial discharge lies just there, and thus every facility for absorbtion is present. Dr. Thompson thus accounts for those cases of puerperal infection in which it is difficult to discover the starting point of the disease.

I am not aware that Dr. Thompson's observations as to this distribution of lymph vessels have been confirmed, but as to the existence of the "concealed laceration" I am quite certain, and for other reasons than to prevent possible septic absorption it should receive attention, and a stitch, catching the point of the flap and bringing it down into place, should be introduced.

There is another class of cases in which septic infection is especially likely to occur, namely, in soft flabby women, in whom, in spite of all ordinary precautions, the uterus does not contract well after the expulsion of fœtus and placenta. The consequence is that the small shreds of placental tissue, which, I believe, are left behind in almost all cases, are not squeezed out of the uterine cavity, but remain behind and necrose, thus becoming a nidus specially adapted for the development of septic organisms, which gain admission through the patulous cervix. This condition may occur where there has been no instrumental or other interference, and, in fact, happened to a patient of my own in whose case I did not appear on the scene until both child and placenta had come away. Two days after the confinement there was a rise of temperature, which steadily increased each day. The discharge became offensive, and on examination there was found a large inflammatory effusion on the left side of the pelvis. The cervix was patulous and open, and on introducing the finger into the uterince cavity the placental site was easily recognizable, being studded over with little knobs of placental tissue. The whole uterus was so soft and flabby that it was not thought advisable to use a curette for fear of perforating the uterine wall. The necrosed tissue was therefore scraped away with the finger nail. Besides the shreds referred to as being attached to the placental site, the whole inner surface of the uterus was covered with a layer of softened, necrosed tissue about one-sixteenth of an inch thick, which was scraped away, and the cavity carefully irrigated. This patient was for a time very ill, and although the peritonitis never became general, there was a widespread absorption of septic material, as shown by the occurrence of abscesses in the cellular tissue in various parts of the body and effusion into the right knee-joint. She eventually recovered, and is now perfectly well.

A practical point about this case is that no amount of irrigation of the uterus, unless it had been preceded by the scraping away of the septic and necrosed tissue, would have been of the least use. That I did not myself introduce the poison in this case I am quite sure, as I made no vaginal examination, and besides, I had about that time several cases of abdominal section in which the peritoneum was freely handled, and in no case was there any subsequent peritonitis.

Another and very similar case also occurred in my practice two or three months after this one, and in which I am quite sure that neither the nurse nor myself were responsible for the septic infection which ensued.

The case is rather an interesting one, and I will give shortly the history:—Mrs. S., *æt.* 35, an anæmic woman of very nervous temperament (one child seven years old), seen by me January 15, 1893, was then eight months pregnant. The right breast contained a schirrous mass half the size of one's fist, and infiltrating the skin over it; no ulceration; several enlarged glands in axilla. The abdomen was very large. This was subsequently found to be due to an excess of amniotic fluid. Because of the advanced condition of the carcinoma of the breast, it was decided to operate at once, and not wait for the termination of pregnancy. The breast was removed on January 22, and the whole contents of the axilla very thoroughly cleared out; no drainage tube used, and the wound healed by first intention. The patient was allowed to sit up out of bed on second day after operation, as the size of the abdomen interfered with her breathing when she lay on her back. Fourteen days after operation, *i.e.*, February 4, labour came on. Pains were very feeble, and finally, the os being dilated and head low down, the forceps were used to complete delivery.

The precautions for providing asepsis were as carefully carried out with regard to the labour as those observed in connection with the breast wound. On February 6, *i.e.*, second day after delivery, temperature began to rise, and on the fourth day after delivery some pus was discovered in connection with the axillary wound. This was evacuated, and temperature fell, but not to the normal. I believe this formation of pus was due to the use patient made of her right arm for pulling during labour, as previous to the confinement the temperature had been normal. On the ninth day the temperature dropped to normal, and then rose suddenly to 104°, this rise being accompanied by a rigor. This was repeated on each of the two following days, and the lochia became offensive. Under an anæsthetic the uterus was explored, and a similar condition was found as in the previous case. Similar treatment was adopted, with the result that the temperature dropped to 97° from 104°. Things seemed to be going all right for two days, when, following an attack of diarrhœa, the abdomen became more and more distended and tender, and a condition of pseudo-ileus was set up, the temperature rising higher each day, until on the fourteenth day after delivery, and fifth day after uterus was scraped and irrigated, the temperature was 105°. The bowels were finally got to act by means of repeated doses of calomel and enemata. The temperature speedily fell to normal, and convalescence was practically uninterrupted.

In this case I believe that in spite of the repeated irrigation of the vagina before labour there must have been some septic organisms remaining, and owing to the diminished capability for resistance of the patient's tissues and the want of proper contraction of the uterus, a condition of septic necrosis inside the uterus was set up.

I have detailed these two cases because they illustrate very well one form of puerperal infection, and they call for prompt and decided treatment on the lines which I have indicated.

To sum up, puerperal infection or fever is :—

1. Not a specific fever, but only one of the many forms of wound disease.
2. The infection is always from without.
3. The pathogenic organisms may act *directly* upon the tissues, interfering with their nutrition and growth locally; or *indirectly* by means of the chemical poisons or leucomaines produced, and the effect of which is proportionate to the dose.

Having now to some extent defined what we mean by puerperal infection, we must next ask ourselves, is it preventible? And the answer certainly should be "yes" in the majority of cases, that is, if we recognize sufficiently the importance, not only of *antisepsis*, but of *asepsis*. We should set before us a high standard in this respect, taking for our model, in fact, the example of scrupulous surgical cleanliness set by the best-managed maternity hospitals in Europe and America. I am quite aware that it is absolutely impossible to do this in all cases in private practice.

In a recent number of *The Lancet* there is a remarkable paper by Dr. Boxall, in which he takes the mortality statistics of the Registrar-General for Great Britain for 10 years, and shows that there is a decided *diminution* of deaths from puerperal accidents, *i.e.*, accidental hæmorrhage, &c., while in the provinces in England there is an equally decided *increase* in the death-rate from puerperal infection; and I suppose we may fairly assume that a similar state of affairs obtains in this country. We ask why this is? Is it due to increased frequency of instrumental labour, or to inefficient asepsis by the doctor or nurse, or thirdly, a combination of these two causes? I think that probably the third suggestion is the correct one.

This point brings up the question, not only of the proper training of medical men, but especially that of nurses and midwives. It seems to me perfectly monstrous that so many women who are absolutely ignorant of the first principles of surgical nursing should be allowed by the State to take not only partial, but in many cases complete charge of such important cases as confinements.

Confinement cases should be prepared beforehand, and looked after subsequently as carefully as major operation cases. At all events the medical man can make sure that his hands and instruments are clean, and wherever it is possible, let him provide a really efficient and reliable nurse. I am quite sure that if medical men insisted upon this point more strongly with their patients we could in time powerfully influence public opinion in this direction.

We will assume then that an efficient nurse has been provided by an equally well-trained and careful practitioner, the patient then has to be prepared. In doing a vaginal hysterectomy one is careful, if there is any vaginal discharge, to make the vagina, as far as possible, aseptic. Why should this simple precaution be neglected in confinement cases simply because the latter is more common than the former? In each there is the serious danger of septic absorption and infection. Even the simple cleansing of the external genitals with soap and water is more often than not neglected. The rectum should be emptied by means of an enema, and *not* by a dose of castor oil, given as soon as labour begins, which will probably act freely just as the head is coming down. Old and soiled things are often considered "good enough to soak up the mess," and the patient frequently wears a petticoat and nightdress which are the reverse of aseptic. Then again, after the labour is over the condition of the external genitals and vagina needs careful attention, just as would be done, in fact, in a case of vaginal hysterectomy. A question which is often asked is, is it necessary in all cases to use the vaginal douche after labour? I think not in all cases; especially if the lacerations resulting are very slight, the uterus firmly contracted, the patient strong and robust, and the parts have been kept clean before and during labour. It is most important not to leave absorbing surfaces; therefore lacerations, concealed or otherwise, should be stitched at once; and I would especially refer to that triangular flap of mucous membrane so often seen torn in the posterior vaginal wall, behind the fourchette. To do this a suture of horsehair or silkworm gut should be entered on one side of the vaginal orifice, passed through the apex of the flap and out at a corresponding point on the other side to the point of entry. On the other hand I have seen a case, one of severe puerperal eclampsia, in which forcible delivery was necessary, and there was extensive bruising and deep laceration of the cervix, where, because of the patient's grave condition at the time, immediate suturing could not be done. Careful irrigation with carbolic acid lotion was carried out, and not only was there no rise of temperature or any indication of septicæmia, but the tears healed apparently by first intention.

So far prevention only has been spoken of. Suppose a case has gone on to actual septic infection, what is to be done? We must remember that there are several types of puerperal infection. Fortunately most cases come under the heading of septic intoxication, the effect being proportionate to the dose; and if the cause, as, for instance, a portion of placenta or decidua left *in utero*, be removed promptly, the temperature falls and there is no more trouble.

Another type of case is decidedly more serious, *i.e.*, where there is true septic infection, and the poison once introduced into the blood stream seems to multiply there, and there is a desperate struggle between the resisting powers of the patient's tissues and the invading micro-organisms, even *after* the *local* focus of mischief has been removed. Our treatment must be modified by each case, bearing in mind the type to which each belongs.

As has been mentioned before, every rise of temperature in a puerperal woman does not mean puerperal fever, therefore look carefully for the cause, it may be due to a mammary abscess, inflamed piles, &c. Also, there seems to be very generally, even in straight-forward cases, a more or less well marked rise of temperature about the second or third day; due in some cases, probably, to the establishment of the mammary secretion, in others, possibly, to the absorption of the products of effused blood, from the bruising caused by the passage of the child's head, and corresponding to those cases of so-called "traumatic or surgical fever," occurring in subcutaneous or aseptic wounds.

If we find no ordinary cause for the rise of temperature, such as piles, mammary abscess, &c., also that the lochia are normal and there is no abdominal or pelvic tenderness, an aperient, with or without a few grains of quinine, will probably put everything right. If, however, there is abdominal tenderness with offensive lochiæ, the question will arise, has anything been left behind in the uterus, portions of decidua or blood-clot? Or is the condition one of septic absorption from the uterine surface or from lacerations of the cervix or vagina?

A vaginal examination is essential, and is often not made early enough. In cases of septic trouble from any cause, but especially if a portion of placenta, or membrane, or blood clot, is left *in utero*, the cervical canal is usually open and the uterus large and soft; if this is the case, and after a thorough irrigation of the vagina with, say, carbolic acid or lysol solution, or sterilized water, then explore the uterus with the finger, especially if there is abdominal tenderness. This is best done under an anæsthetic, and in cases where it is necessary it is rarely needful to dilate the cervix by artificial means. Under an anæsthetic a thorough bi-manual examination of the pelvis can be made and the uterus easily explored, placental or decidual *debris* removed, or, as in the two cases referred to, the whole uterine surface can be scraped, either with a curette or the fingernail, and the cavity thoroughly irrigated. It is often useful to introduce, and leave inside the uterine cavity, an iodoform bougie, which dissolves slowly. It is not often necessary to frequently repeat the intra-uterine douche, though frequent vaginal irrigation should be used. Supposing the infective process has gone further and, as had happened in a case which was recently the subject of a coroner's inquest, there is reason to suspect peritoneal infection by direct continuity along the fallopian tubes, then, after thoroughly clearing out the uterus the question of abdominal section and peritoneal irrigation and drainage arises; and that this can be done with success, even in an apparently almost hopeless case, is a fact, as I have quite recently seen an instance. In such a case it is wise not only to drain through the anterior abdominal wall, but also through the vagina.

When, however, the case has resolved itself simply into a condition of effusion between the layers of the broad ligament, on one or both sides, then hot vaginal douches, abdominal fomentations and suitable therapeutic treatment will be sufficient. If the effusion breaks down and pus forms, then open either from the vagina or through the abdominal wall. Free evacuation of the bowels is most important, and in fact nature seems in some cases to attempt to throw off the poison by means of a sharp attack of diarrhœa; though in other cases, as for instance, one of those quoted above, there is a condition of pseudo-ileus, such as sometimes follows an abdominal section. This condition must be overcome by means of repeated doses of calomel, or even croton oil, otherwise the patient will die.

In those cases where local abscesses form at a distance from the original focus of infection, it is often a sign that the virulence of the infective process is coming to an end.

In the other type of case where the local signs are slight, and there are simply symptoms of intense septic infection, the poison is probably rapidly multiplying in the blood, and the prognosis is very grave; often death ensues within two or three days.

In conclusion, I would say that each case will probably present points of difference, and it is of great importance to decide, if possible, to which type it belongs, both as regards prognosis and treatment, and to determine the precise local conditions, so that if possible we may act promptly, and, in fact, follow sound, general, surgical principles, *i.e.*, (1) prevention; (2) removal of the cause, if possible, as distinguished from the mere treatment of symptoms.

I have spoken but little of drugs. Those most useful are quinine (in various forms), opium or calomel, digitalis, and stimulants given as occasion arises.

Macquarie-street, Sydney.

DR. ELLIS said he had had a case of this character lately, which had resulted in the death of the patient. He felt that he was in no way to blame for the infection, as he had not touched the patient. One always has the idea that it is well to leave the vagina alone. However, he (Dr. Ellis) did not think it advisable to wait too long, and in the case mentioned it would have been better to have examined the uterus on the third day instead of the fourth. The placenta should be properly cleared out and the uterus plugged with iodoform gauze. In this case the rise of temperature occurred immediately after birth. One point mentioned by Dr. Thring with regard to the nurses—this question should be taken up by this Branch, and, if possible, some steps taken to prevent incompetent persons from nursing midwifery cases.

DR. MEGGINSON said he thought that the principal thing in these cases was cleanliness and antiseptics. There is no doubt that if you get cleanliness with the nurses in charge of cases there would be much fewer cases of infection and deaths.

DR. EDWARDS said there was one point he would like cleared up. It was mentioned in the paper read by Dr. Thring that the vagina was plugged in one case with iodoform gauze. He (Dr. Edwards) would like to know if boracic would be as good or not. With regard to nurses who frequently take charge of midwifery cases, it was certainly a scandal that some of them are allowed to act.

DR. ARTHUR said he thought it would have been well to have had the paper first on the business sheet, so that the question could have been properly discussed. In his practice he (Dr. Arthur) had not yet been able to arrive at what preventitive means should be used in these cases. Dr. Thring suggests irrigation of the vagina before confinement in some cases. If irrrgation is to be done before and after delivery it should be done by the medical man himself, as it is useless to leave it to the midwives. There was one point he (Dr. Arthur) would like to have cleared up. What is the duty of the medical practitioner if he has a case of puerperal infection under his charge? When should he attend another midwifery case? Among the practitioners at North Sydney he had suggested that a sort of certificate should be given to the nurse whenever she has finished a case, and so remove one source of possible infection.

The debate was adjourned, and Dr. Worrall intimated that he would open the discussion at the next meeting.

The Hon. DR. CREED, M.L.C., read some notes on a case of persistent vomiting, cured by hypnotic suggestion.

PERSISTENT INCONTROLLABLE VOMITING CURED BY HYPNOTIC SUGGESTION.

BY J. M. CREED, L.R.C.P., &c.

ON August 18, in compliance with the wish of Dr. Jamieson, I met him in consultation on the case of Mrs. B., who, for 21 days, had been suffering from incessant and apparently incontrollable vomiting.

The consultation took place in the early morning, and I found the patient in such a condition as to render me very doubtful as to whether any success was to be expected from hypnotic suggestion—the point which I had been especially invited to consider. She was lying in bed on her right side with a towel placed under her mouth, she having become so weak as to be unable to use a basin into which to vomit. She was retching incessantly. The tongue was very red and dry; the lips dry and cracked; the pulse very rapid and weak, and she appeared to be almost moribund. As every drug likely to be effective had been tried, I did not think it well to decline to try the effect of hypnotic suggestion, though the condition of the patient was such as to lead me to think it most unlikely to be successful. I therefore at once proceeded to induce the hypnotic state by means of the example of another subject, and passing my fingers a few times over the eyelids with suggestions to "sleep." She almost directly passed into the lethargic state, when I made suggestions that the retching would cease, and that she would not feel any further nausea, but feel inclined for food.

The desired effect followed, and, as having been related by Dr. Jamieson, from that time with hardly an interruption she progressed to recovery. I saw her this morning, Oct. 6, and she looks stout and well. She also tells me she has lost her former headaches, and has never had any further sickness.

The pathological history of the case has been kindly given by Dr. Jamieson in the following statement, whose patient the lady still is, it is unnecessary for me to add to it.

NOTES FURNISHED BY DR. JAMIESON.

On July 25 I was requested to attend the confinement of Mrs. B., *æt.* 22 years, then about seven and a half months pregnant. She had previously given birth to two children, both labours being easy and terminating without the use of instruments. On enquiry into her previous health I found that the only previous illness she remembered having had was an attack of measles (?) some eight years ago, which was followed shortly after by dropsy of the feet, hands, and face. In a short time she recovered from this attack, but on and off ever since had been much troubled with severe headaches.

She was a well-nourished, strong-looking young woman. Complexion rather pale and pasty-looking; slightly puffy beneath eyes; pulse 76, tension abnormally high. The condition of the pulse, together with the history of dropsy, led me to examine her urine, when I found that it was of specific gravity 1012, and contained a slight trace of albumen, together with a few granular and hyaline tube casts. There was also some degree of hypertrophy of the left ventricle, and a somewhat heaving action of the heart. I ordered her to avoid nitrogenous foods and keep herself for the remainder of her pregnancy on a diet almost exclusively consisting of milk and carbohydrates.

A few days after I was sent for to see her, and found her suffering intensely from headache, and vomiting almost everything she took. I ordered a mixture of bismuth with hydrocyanic acid; this had no effect whatsoever. I then tried successively oxalate of cerium, hydrochlorate of cocain, minim doses of tinct. iodi., minim doses of liq. arsenicalis, and pretty well every drug recommended for the purpose of checking vomiting.

The os uteri during all this time was slightly patulous, being about the size of a shilling piece, but no appearance or sign of parturition was present.

The vomiting still continuing, in spite of all the remedies tried, I had a consultation with Dr. Murray Oram. We both agreed that the vomiting was uræmic in origin, and as a result of our deliberations the patient was ordered to try the effect of small doses of ingluvin, and should that fail we decided to induce premature labour. The ingluvin had no effect whatsoever, but next day I was hurriedly sent for and found that she had just given birth to a stillborn child. The child was well formed and about eight months old; the skin over the whole of the body was peeling, and over the abdomen the tissues had some green and yellow discolouration.

It was evident that the child had been dead some days, and I naturally thought that my patient's intractable vomiting was due to absorption of products of decomposition from the dead child.

Next day the vomiting was somewhat less, but she had passed a very restless night. I again tried the effect of drugs, and for more than a week all my attempts were absolutely without avail.

As a last resource I thought I would try the effect of hypnotic suggestion, and with that view I asked Dr. Creed to see her with me the next day.

On August 19 Dr. Creed partially hypnotized her, and immediately thereafter she expressed herself as feeling better. She did not vomit during the whole of the next three days, but on the third day she vomited twice after taking champagne. Suggestions were again tried, and again with success.

After that the patient's recovery was uninterrupted, except that on the 12th day from the first hypnosis she vomited for about three hours, ejecting about two pints of dark green fluid, consisting principally of bile. On being hypnotized the sickness at once ceased.

From the time of the first hypnosis the patient began to improve, and about 10 days after was up and about.

Her urine is still of very low specific gravity, and contains albumen and casts; but she has since had no headaches, and has had no recurrence of the vomiting.

DR. G. A. MARSHALL cited two cases wherein he had marked success by hypnotic suggestion.

DR. WORRALL said he thought that the delivery of the woman must have been an important factor in the recovery of the patient. There was no doubt that emptying the uterus had a marked effect in such cases.

DR. ARTHUR asked how long an interval elapsed in the case after labour.

DR. CREED replied that 14 days had elapsed after labour, and he did not think that emptying the uterus had anything to do with the recovery, as the vomiting continued and was more marked after delivery.

NEWCASTLE (N.S.W.) MEDICAL SOCIETY.

◆

A **SESSIONAL** meeting of the Newcastle Medical Society was held on July 13, Dr. Treloar (President) in the chair; also present, Drs. Ross, Kane, Beeston, Nash, Eames, Cribb, Hester, Smith and Nickson.

DR. BEESTON read "Some Notes on a Case of Intussusception."

DR. SMITH followed with a paper "On a Case of Strangulated Hernia, occurring during Labour."

Both papers were discussed by the members present.

CASE OF STRANGULATED HERNIA IN A MULTIPARA NINE MONTHS PREGNANT.

BY G. F. SMITH, L.R.C.P. LOND., M.R.C.S. ENG., OF HAMILTON, N.S.W.

◆

MRS. W., aged 39; seen on May 27 at 8 a.m.; suffering from strangulated left inguinal hernia. Pregnant nine months.

Previous history.—Had had hernia for many years; eight children; good general health. Hernia had been "strangulated," according to her own account, three times previously, on one occasion kept down for three days when four months pregnant. The same returned of its own accord. Rupture often down without any trouble. Truss generally worn, but left off two months before last attack.

History of present attack.—Had been washing previous evening to being seen, and while lifting tubs of clothes rupture came down. This was followed by pain in tumour and vomiting. Sent for me 14 hours afterwards, when I found a hard, tender tumour in left inguinal canal and down into left labium; no impulse on coughing; tongue clean; pulse good; no anxious expression; vomit, contents of stomach. I ordered hot fomentations and gave a hypodermic injection of morphia and atropine, having first applied taxis without success.

The afternoon of the same day Dr. H. gave chloroform (the symptoms had moderated after the hypodermic injection) and I reduced the hernia with the characteristic gurgle, which was heard by Dr. H. also. On careful examination, however, it appeared as if a portion of intestine remained, although it in no way appeared strangulated. There was considerable ease and freedom from pain after reduction, but vomiting occurred after the chloroform and brought more bowel down. That night I gave another hypodermic and ordered hot fomentations. The temperature was 99, the pulse good, and tongue only slightly furred and dry; retching.

Next morning tumour was harder and more painful. I gave another hypodermic; the tongue was more coated and there was considerable pain in tumour and abdomen. In the afternoon Dr. H. and I saw her again, with a view to giving chloroform and decide on the advisability of operating. Whilst gently manipulating the tumour, however, it again went back with a gurgle, only leaving the same amount of bowel as on the first occasion. The relief was immediate. I saw her a few hours after, and she appeared still improving, although there was still some slight vomiting of a bilious coloured fluid.

At 10.30 p.m. the husband came for me, and said a child had been born. I went and found a full grown male child had been born and placenta away alright. There had only been three pains, and labour was completed. The effect on the patient, however, was fatal. The pulse was about 140; the tongue brown and dry; the abdomen swollen and tympanitic; the tumour again hard and tender; no hæmorrhage of note. Whilst making these observations the patient vomited liquid fæces, and the face became of an unmistakeable dusky hue. I gave a hypodermic of strychnine, ergotine, and morphia, but felt certain that death was inevitable. The patient died eight hours after delivery and two and a quarter days from first strangulation, conscious to the last.

I believe death was due to shock, partly from labour, but chiefly from peritonitis. The question of doubt in my mind is whether an operation should have been attempted when we found that we could not entirely empty the sac and the bowel came back a second time. Had the patient not been pregnant (nine months) I should certainly have felt inclined to have operated, but the slight improvement of other symptoms, with the fear of labour complicating an operation, made me feel that to operate would be unjustifiable.

There is another question, was the bowel ulcerated, or did the peritonitis arise from the manipulation of congested intestines, or did perforation occur before or during labour?

NOTES ON A CASE OF INTUSSUSCEPTION.

BY DR. J. L. BEESTON, NEWCASTLE, N.S.W.

◆

LAST February I was called to see a child seven months old with the following history:—

He was in his usual health up till about 11 o'clock in the morning, when he suddenly began to cry violently, and doubled his legs onto the abdomen; almost immediately afterwards he vomited freely and seemed to faint. I saw him about four o'clock in the afternoon. He was in a state of semi-collapse, vomiting everything he drank. The bowels had acted once with straining. The stool contained about two teaspoonsful of blood. His pulse was barely perceptible, the feet and hands were cold, and altogether his condition seemed very serious. On palpating the abdomen a tumour could be felt over the cœcum about half the size and shape of a Fiji banana. Pressure over the spot increased the pain, which was not constant, but recurred in paroxysms. Each paroxysm was accompanied by vomiting and a seeming desire to evacuate the bowel, though nothing passed but a little mucus and some blood. The vomiting was peculiar, the ejected matter appearing to greatly exceed what was taken, and come from the child as if from a force pump.

The diagnosis of intussusception was made, and the state of the child explained to the parents with the view of obtaining consent to any operative measures which might in the course of the next day or so become imperative. The parents being strenuously opposed to any surgical interference, the child was placed on two minim doses of tinct. opii in water every hour until the physiological effect was produced. Owing to the excessive vomiting it was not until late next day that this was obtained.

The second day of illness the abdomen became more tympanitic, so that the tumour could not be felt. The bowels had not acted since, with exception of some blood and a little foul-smelling mucus. The face was pinched and pale, and the child was in a state of collapse. Everything given by the mouth was retained for about five minutes, when it was ejected as if from a pump.

An examination per anum yielding negative results, I tried insufflating air by means of an Ingram's enema, with no apparent effect.

The third day things had gone from bad to worse, but any suggestion of an operation was negatived by the parents. The child seemed so very ill that a fatal termination seemed close at hand.

However, at my visit on the fourth day the condition had wonderfully improved. Early in the morning there had been a copious, loose evacuation of the bowels, and a piece of fleshy-looking matter, having a most putrid smell, was passed with a quantity of mucus.

The vomiting ceased from this time, and the child took the breast greedily. The abdomen was softer, and the tumour had disappeared. In a week's time the child appeared almost as well as he ever was.

This case appears of more than ordinary interest. I have had several cases of intussusception, but this is the only one which has terminated in this manner.

The diagnosis can hardly be doubted—the sudden onset of the symptoms, the paroxysms of pain, with severe vomiting, together with obstinate constipation and the presence of a tumour, with the escape of blood and mucus from the bowel, place the matter beyond the shadow of a doubt, and the putrid mass discharged in the first motion was, I take it, the invaginated piece of bowel which had sloughed off.

Eustace Smith, in his work on "Diseases of Children," gives peritonitis, dysentery and fœcal impaction as the affections most likely to be confounded with intussusception.

In peritonitis the temperature is elevated from the first, and the abdomen is distended and tense. "In intussusception there is frequent tenesmus, and after a few hours, blood and mucus are discharged from the bowel. This sign, added to those of intestinal occlusion, is pathognomic." In this case the temperature was subnormal, and the parieties were lax until the second day.

In dysentery we miss the abrupt onset, the frequent vomiting, and the lax, undistended condition of the belly. And in fœcal impaction, though a tumour may be detected, still there is a history of scanty stools for a period before the attack. There is no bloody mucus, and the vomiting is less severe.

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Monthly Meeting, held at the Adelaide Hospital on 26th October, 1893. Present: President (Dr. Way), Drs. Wigg, Perks, Corbin, J. C. Verco, Hayward, Harrold, Cleland, Powell, Symons, Todd, Martin, Teichelmann, Stewart, A. A. Hamilton, Stirling, Seabrook, Cavanagh-Mainwaring. Magarey, Robertson, Gibbes, Giles, Michie, Lendon, Archer, Harbison, Morris, Evans, Clindening, J. A. G. Hamilton, Jay, Lawrence.

Dr. Swift showed a fœtus removed from a patient, who gave the following history:—She menstruated last on April 3; she quickened in August; September 3 she had a coloured discharge and some pains. About a fortnight after, as the discharge continued, Dr. Swift was consulted; he thought she was about four months gone. The discharge was slight, and continued so; no odour. He saw her again on October 10, when the uterus was much smaller. On October 26 fœtus came away without much trouble, membranes intact; fœtus had evidently been dead for some weeks and was much shrivelled. Fatty changes in placenta.

The **President** showed a child upon whom he had successfully operated for umbilical hernia.

Dr. J. A. G. Hamilton showed a sarcoma about the size of an orange, removed from a woman aged 30. It was situated on the left side of the abdomen, midway between the costal margin and the umbilicus. Before removal it gave one the idea of being entirely intra-peritoneal; was freely movable, but on cutting down on it, it was found to be in the abdominal wall, springing from the transversalis fascia, extending onto the outer edge of the rectus muscle, and invading the peritoneum. The whole thing was cut away; the cut edges of peritoneum were brought together with buried continued catgut sutures; the deep fascia was brought together in the same way, and the skin and muscle by silk sutures.

DR. LENDON exhibited :—(1) A case of sporadic cretinism, which was improving rapidly under treatment. (2) A case presumably of patent foramen ovales in a girl *æt.* 5 years. A peculiar murmur was audible over a limited area. (3) A child, *æt.* two years, with large sebaceous (?) cyst of scalp.

DR. TODD proposed, and Dr. Clindening seconded, "that the minutes of the ordinary meeting of August 31, which had been published in *The Australasian Medical Gazette*, should be taken as read." Carried.

Minutes of special meeting of October 5 read and confirmed.

Report of Council on case of Dr. Stewart and Dr. Hynes was read, as follows :—

"After hearing all the evidence brought before it and carefully considering the same, the Council came to the following decision :

"The Council is unanimously of opinion that while there is not sufficient trustworthy evidence to prove that Dr. Hynes made use of the exact words attributed to him in the charge laid against him by Dr. Stewart, it is satisfied that Dr. Hynes made use of expressions leading Mr. and Mrs. Greig to believe that their child was suffering from the effects of vaccination by impure lymph, and that his conduct without previously satisfying himself on this point was indiscreet and unwarranted, and is accordingly deserving of the censure of the Council.

"The Council also strongly disapproves of his attitude as disclosed by his own statements in interviewing and endeavouring to entrap an important witness in the enquiry."

The **PRESIDENT** then read the above decision to Drs. Stewart and Hynes.

The **PRESIDENT** then censured Dr. Hynes.

The Council adjourned at 11.30 p.m.

The **PRESIDENT** read the following letter, received from Dr. Hynes, tendering his resignation.

"Stow Manse, Flinders-street, Adelaide,
"26th October, 1893.

"To the Chairman British Med. Assn.,
"Meeting of above date.

"SIR,—I consider the report furnished by the Council to be a biassed and unfair one, and contrary to the weight of evidence; also that that body exceeded its functions in criticising my conduct *re* examination of witnesses—a subject apart from the main issue of the enquiry, which was to decide whether or not certain statements had been made by me.

"I consider that the paragraph inserted by the President in the *Register* as grossly unjust to me. It is contrary to that professional etiquette which he, by virtue of his position, should be the first to uphold. The publication was made despite the distinct promise of the President to me that no communication would be made in the lay journals.

"I neither wrote nor inspired the first paragraph, which seemed to be inserted with the covert object of permitting the publication of the resolution of the Council. Under such circumstances, as neither honour nor advantage can be gained from association with a society which dispenses such uneven justice, I hereby tender my resignation. I am, yours faithfully,

T. A. HYNES."

DR. CLELAND moved, and **DR. ARCHER** seconded, "that the report of the Council be received, and that the Council be thanked for its services." Carried.

DR. J. C. VERCO proposed, and **DR. J. A. G. HAMILTON** seconded, "that the action of the Council be approved." Carried.

DR. STIRLING moved "that the standing orders be suspended." **DR. TODD** seconded. Carried.

DR. STIRLING moved "that Dr. Hynes' resignation be not accepted." **DR. HAYWARD** seconded. Carried.

DR. STIRLING proposed, and **DR. LENDON** seconded, "that the further consideration of the matter be referred to the Council." Carried.

Ballot for Dr. E. J. Minchin. Elected.

Owing to the extreme heat the meeting then adjourned.

The ordinary meeting for September was allowed to lapse owing to the meeting of the Australian Association for the Advancement of Science being held at that time. A special meeting was convened (at the request of 5 members), and held on October 5th, 1893, at the Adelaide Hospital, for the decision of an ethical matter. Which was referred to the Council.

PROCEEDINGS OF COLONIAL MEDICAL BOARDS.

◆

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Helbing, Paul, State exam. Certif. Tübingen, Germany 1889
Ramsay, James Edward, M.B. Lond. 1893.
Henderson, John Niven, M.B. *et* Ch.M. Sydney 1893.
Scott, Edward Henry, M.B. Sydney 1893.

NEW ZEALAND.

Darby, William John, L.R.C.S. Irel.
Hatherly, Henry Reginald, L. Mid. *et* M.R.C.S. Eng., L.R.C.P. Edin., L.S.A. Lond.
Thomson, John Bell, M.B. *et* Ch.M. Edin.
Makgill, Robert Haldane, M.B. *et* Ch.M. Edin. 1893.
Gane, Edward Palmer Steward, M.R.C.S. Eng., L.R.C.P. Lond.

TASMANIA.

Clemons, George Ernest, M.B. *et* C.M. 1891, M.D. 1893, Edin.

VICTORIA.

Jackson, Allan Godwin, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1892; L.F.P.S. Glas. 1892 : M.D. Brussels 1892.
Gravely, Ronald Thomas, L.R.C.P. Lond. 1889; M.R.C.S. Eng. 1889.
Butchart, John Elder, L. *et* L. Mid. R.C.P. *et* R.C.S. Edin. 1893; L.F.P.S. Glas. 1893.

WESTERN AUSTRALIA.

Badock, Arthur, M.D. *et* B.S. Durh. 1892.

MEDICAL APPOINTMENTS.

◆

Atterbury, Walter, M.D., M.R.C.S.E., to be a Public Vaccinator for the district of Akaroa, N. Z.

Barker, Theodore Hugh, M.B. *et* Ch.M. Edin., to be Government Medical Officer and Vaccinator for the district of Wellington, N.S.W.

Bray, Percy Dean, M.R.C.S.E., to be Health Officer for Carisbrook, Vic.

Clarkson, Charles Havard, L.R.C.P. *et* R.C.S. Ed., to be a Public Vaccinator in South Australia.

Connor, Samuel, M.D., to be Health Officer for Wanna shire, Vic., vice Dr. N. B. Gandevia, resigned.

Griffith, James de Burgh, M.B. *et* Ch.M. Dubl., to be Public Vaccinator for South Carlton, Vic., vice Dr. H. Ray, resigned.

Harbison, James Alexander, L.R.C.P. *et* R.C.S. Ed., to be Public Vaccinator at Numurkah, Vic., vice Dr. J. W. Harbison, resigned.

Hodgson, Thomas, M.B. *et* Ch.B. Melb., to be Public Vaccinator for Ferntree Gully, Vic.

Lee, Herbert Ernest, M.B. *et* Ch.M. Edin., to be Government Medical Officer and Vaccinator for the district of Gunnedah, also Surgeon to the Gunnedah Hospital, N.S.W.

Mitchell, Henry St. John, L.R.C.P. Ed., to be Health Officer for Castle Donnington shire, Vic.

Stevens, William Edward, M.R.C.S.E., L.R.C.P. Lond., to be Honorary Surgeon of the North Otago Mounted Rifle Volunteers.

NOTICE.

All Communications intended for the Editor must be addressed "The Editor, Medical Gazette, 13 Castlereagh-street, Sydney."

AUSTRALASIAN
MEDICAL GAZETTE.

SYDNEY, NOVEMBER 15, 1893.

EDITORIALS.

THE MINERAL SPRINGS OF AUSTRALIA.

Two and a half years ago there appeared in *The Australasian Medical Gazette* an article on the above subject, a reprint of which was subsequently submitted for medical and lay perusal.* The frequent discovery of further springs, medicinal and thermal, throughout Australia, including more recently the discovery of an apparently valuable alkaline thermal water in the North and a soda spring near Goulburn, said to possess excellent properties, has suggested our opening up anew this much-neglected subject, fraught as it is with, to our mind, evident and abundant interest, such as should demand the thoughtful consideration of at least those who are interested in the conservation of public health. The discovery of such springs in the old world would be quite enough to create a general excitement and expectancy, and to set going all the machinery of practical and scientific experiment with the object of determining the utility or otherwise of the discovered waters. It is, indeed, passing strange that with us such apathy and indifference should be shown, unless it be explainable by the apathy usually engendered by a plethora of good things—a condition implied in the French phrase, *embarras de richesse*. It is true that, owing to private enterprise, many of these mineral springs have already been submitted once (not periodically) to analysis. It is equally true that the composition of others, perhaps as valuable, remains unknown; but even those of known value are not availed of as they should be.

We might well marvel at nature's provident ways when we consider these treasures lying hidden away in the Australian wilds for centuries upon centuries, awaiting the advent of civilization with its attendant unhealthful artificialities, the effect of which on our bodily constitution they are in a measure capable of neutralizing. Of the many "ills that flesh is heir to," a not inconsiderable number are the consequence of conditions unfortunately inseparable from civilized existence, such as overcrowding, vitiated air, sedentary habits, &c., leading to anæmia, debility, constipation, and a train of other evils. We have also, unfortunately, in these colonies numerous examples of rheumatic complaints (from which, strange to say, the aboriginal rarely, if ever, suffers until he dons the attire and conforms to some of the usages of civilized life), as well as many instances of lithiasis from mal-assimilation of nitrogenous constituents, owing chiefly to excessive meat eating. Nor are there wanting abundant examples of the languid, dyspeptic and anæmic young girl, or the pale, unhealthy male adolescent, whom nature designed to develop his physical powers in a free nomadic existence in the wooded slopes and verdant plains, but who, from being cooped up in a dingy city office, exhibits barely a third of manly excellence, and whose physical capabilities would provoke laughter from a healthy young savage. A natural means of at least minimizing these and other morbid conditions would be a periodical residence at the sources of our mineral springs, placed as they fortunately are in salubrious regions. Their neutralizing and curative ingredients are found blended in palatable form, owing chiefly to the large volume of free carbonic acid gas with which they are mostly surcharged, and are invariably present in happy combination. We find, for instance, the iron ingredient combined with a saline laxative, which aids in, and indeed is essential to, the production of its full therapeutic effect. Marvellous Nature, the great healer, thus anticipates with scientific accuracy the wants of individual cases, and, so to speak, generously invites the unhealthy to partake of her remedies. Ought we to remain indifferent when she thus bountifully yields her cures and her palliatives? It is a pity and a shame that these health fountains, welling up invitingly around, should be allowed to flow off "untouched, untasted," into the silent waste, while numbers of sufferers elect to proceed to the old world in search of waters which are not better, and in some instances, not as good. What need for health-seekers to undergo a long and expensive voyage to the natural mineral water resorts of Europe when we have in our own fair land, for instance, another Cheltenham or Wildungen, or a Belgian "Spa" in the rich, carbonated, ferruginous, saline waters of Hepburn in Victoria; a Tunbridge Wells or Bavarian Racoczy in the sparkling and invigorating chalybeate-aperient-tonic springs of Clifton; a delightful table seltzer in the Clifton "Queen of Spas," a veritable Homburg "Elizabeth Brunnen" in its magnesia spring; another Vichy in the lithiated alkaline-saline-chalybeate waters of Ballinore (Dubbo, N.S.W.); or a Karlsbad "Sprudel" in the hot springs of Innot, Queensland?

---

* "The Mineral Springs of Australia," by Ludwig Bruck, *Australasian Medical Gazette* office, 13 Castlereagh-street, Sydney, 1891.

But the public cannot be alive to the special curative value of our mineral springs unless it be pointed out to them; nor can sufferers be reasonably supposed to exchange home comforts for a rough-and-tumble residence, even when combined with the physiological and therapeutical advantages derivable from the drinking and the bathing in waters of reputed value. To make these places attractive, therefore, and to popularize them by a general dissemination of a knowledge of their special effects in diseased and abnormal conditions, is of primary importance. But this should be done in no desultory or unsystematic way, and should be prompted by the sole consideration of the public good.

To us it appears beyond doubt, therefore, that the various Australian governments should, as far as practicable, hold these springs for the people's benefit, amongst other reasons in order to ensure a uniform, methodical, and efficient management of them; but, above all, to prevent private interests, private apathy or injurious monopoly from interfering with their general usefulness. No doubt private enterprise is a good thing in its way, but it would be deplorable were such a state of things ultimately to arise in the case of our mineral springs as in certain of the European Spas, where, owing to high terms, the poor are practically excluded from their advantages. We say very decidedly that neither private nor combined monopoly, nor even municipal interests, should stand in the way of the general good. Whether these God-given health waters should, in the fullest sense, belong to the people is a question to which, therefore, the colonial governments might wisely turn their attention.

By means of a short Act of Parliament the various Boards of Health might be invested with authority to assume special control over the management of all existing springs, and of those which may yet be discovered; they might be empowered to take absolute possession of those upon Government lands; to purchase out others from private holders or companies; to fix terms for the employment of the waters at so moderate a rate as to bring their use within the reach of all; to cause them to be periodically analysed; to appoint a resident medical superintendent who would, amongst other things, report on their known effects; to make the localities generally attractive; to recommend parks to be reserved in the vicinities, anticipating the ill effects of possible overcrowding from the growth of municipalities around them; to advertise and otherwise popularize the springs, &c.

However, pending the possible advent of some such systematic governmental control as here indicated, we earnestly urge medical men residing in the vicinity of mineral springs of supposed value to have them analysed at various seasons, to test their effect on the functions of life and on different phases of disease, and to publish the results of their labours in *The Australasian Medical Gazette* for the benefit of their medical brethren and the community at large. Any efforts thus made by local practitioners in the direction of developing and rendering applicable these great natural restorative treasures, would bring ample compensation by the *kudos* derivable therefrom, as well as by the possible increase to their incomes owing to the influx of patients; and, assuredly also, we may add, by the consciousness of thus contributing to the relief of suffering humanity.

UNLICENSED MEDICINE VENDORS.

ONE of the most important judicial decisions which have yet been given in Australia as to the licensing of persons practising in medicine under various descriptions was given in the Supreme Court, Victoria, by Mr. Justice Hood upon an order to review a conviction by the city magistrates, whereby an herbalist named R. Heyfield was fined £20 and costs for having acted as an apothecary without a license.

Mr. Justice Hood said the charge was brought under section 20 of the Act 55 George III., c. 194, passed in 1815, "for the better regulating the practice of apothecaries throughout England and Wales," and the order to review was sought on the ground that this section was not enforceable in Victoria, the Medical Act of 1890 having impliedly repealed the English legislation previously in force here by virtue of 9 Geo. IV., c. 83. The contention for the appellant was that where the Victorian Legislature dealt with any subject it impliedly repealed any English legislation on that subject. In his Honor's opinion that proposition was far too wide. No doubt where Parliament dealt with a complete subject, such as the insolvency law, the necessary inference must be that it was intended that the local legislation should cover the whole ground. The first thing was to consider whether there was any reason to suppose that the Victorian Act could not exist side by side with the previous law. If there was anything inconsistent between the two, or if the local Legislature had not purported to deal with the whole question, it was only reasonable to suppose that either the one had no connection at all with the other or that they were meant to co-exist. In the present instance he could see nothing inconsistent in the two acts. The English Act punished any person who acted as an apothecary, not being licensed; the Victorian Act punished anyone who pretended to be an apothecary, not being registered. The two might well stand together. Nor did he think that the Medical Act was intended to, or did cover the whole of the subject. It provided no qualifications, but was merely a registration act, and its main object was to compel registration. There seemed no reason for concluding that it repealed the previous legislation. The conviction must therefore be upheld, and the order *nisi* would be discharged with costs.

This decision is of much interest as showing that, notwithstanding the defects of the Medical Acts of the various colonies, men who have no qualifications are liable to conviction if they attend patients and supply them with medicines. For we take it that it is the combination of medical attendance and the consequent supply of medicine which constitutes a man an apothecary, and therefore amenable to the English act in question. If a man attends a patient without supplying medicine he is not an apothecary, but acts either as a surgeon or physician; whilst if he supplies medicine without having attended the patient, his offence, if any, will be against the provisions of any law regulating the conduct of chemists and druggists.

Though believing it would be much to the public interest that ignorant or prejudiced people should be protected against their own folly in desiring treatment by men who have no proof by the possession of diplomas that they are competent to carry out the task they undertake, we are very doubtful whether it is to the interest of the profession that any one should be prevented from consulting any person he chooses. As always we are of opinion that all that is advisable that legislation should do, is to provide that no irregular practitioner so misrepresents himself as to deceive people who employ him into believing that he is a properly qualified practitioner. If this is rendered easy, no person will consult an unqualified man in ignorance of his unfitness, and as long as such a patient is not the victim of deception he is worthy of no sympathy in whatever trouble he brings on himself by his stupidity.

POPULAR BUT DANGEROUS REMEDIES—KEROSENE IN DIPHTHERIA.

From the *Brislane Courier* of October 14 we gather details of a magisterial enquiry into the death of Robert Fleming, aged three years and two months.

The mother, in her evidence, stated that on the 8th August she took her child to Dr. Love, who prescribed for it. She then took it to the Rev. Mr. Stewart, who cleaned its throat with a penholder with a piece of rag tied to it, which had been dipped in kerosene. Witness brought it back next day. She did not give the child any of Dr. Love's medicine. The application of kerosene was repeated by the Rev. Mr. Stewart, who also gave it half a teaspoonful internally, to be repeated every four hours. The child grew much worse on the 10th August, and the reverend gentleman told her to take it to the hospital. Before Mr. Stewart told witness to take it to the hospital, he said he thought he would be able to bring it round. The penholder was inserted into the throat four times.

Dr. Love stated that he told the mother her child was suffering from diphtheria, and advised its removal to the hospital, as there would be no means of getting to it late at night where she lived. It was apparently a mild case when first seen. If it had been left in his charge, he then saw no reason why it should not have recovered. He did not think it was proper treatment to give the child kerosene. It would be detrimental to it. Kerosene had been used in America and France, but had been abandoned for better treat ment. The amount given would inflame the throat. If kerosene were useful, medical men would be only too glad to use it.

Dr. Lawes admitted the child into the hospital. The breathing then was so obstructed, intubation was performed by Dr. Hardie and himself. The breathing was relieved, but the effects of the disease on the child's general system gradually became more severe, and death ensued the following morning. Dr. Lawes stated he would never use kerosene in diphtheria.

The Rev. J. Stewart said he saw the child at his house, and it was suffering from diphtheria. He tied a piece of rag to a penholder and cleaned the throat. He did not remember giving the child kerosene, but might have done so. The next day he told the mother to give a little kerosene every four hours if it breathed heavily. There was just a colour of blood on the membrane he removed. No child had ever died whilst under his treatment. The enquiry then closed.

The foregoing story is a pitiful one, especially as regards the suffering the poor child must have endured. It would be well if the daily press of this country would publish an account of the excessive pain the application of kerosene causes when applied to any sore. It is a popular remedy for many complaints, and is frequently applied to scalds and burns; in such accidents we know of nothing which would cause more suffering, with the exception of the mineral acids, than kerosene.

The action of the reverend gantleman in applying his remedy was no doubt done with the best of intentions, but a *little* knowledge is dangerous, and in no case more so than in amateur doctoring.

QUACK MEDICINES.—Mr. W. H. Hamlet, Government Analyst in Sydney, makes the following pertinent remarks in his last annual report regarding this subject :—"Some interesting facts came to my knowledge regarding quack medicines which serve to show that simple, harmless substances are used by those who traffic upon the credulity of the public instead of running the risks inseparable from the unskilled use of potent drugs. A poor woman living in the country had a child hopelessly suffering from infantile paralysis —a cripple and quite unable to walk. One of the many quack advertisements in a Sydney evening paper was answered, and brought the prompt reply that the child's case was not hopeless, and that on the payment of £1 medicines would be forwarded of such undoubted efficacy as to make the child walk about quite naturally in less than six weeks from the date of applying the remedy. The money being sent to the Sydney address, the woman received in return a packet of 12 powders, which were carefully given to the child in good faith and according to the directions. A second supply of the powders was obtained on payment of another pound, but as the child was none the better for the course of treatment, the mother naïvely enough sent the powders to the local police for analysis. The powders came in due course, and were submitted to chemical analysis, and were found to consist of nothing more nor less than ordinary white powdered sugar; and although some were marked No. 1 and some No. 2 (to be swallowed by the patient on alternate days), yet both were composed of the same well-known and simple article—sugar."

◆

THE joint examination board of the Royal College of Physicians, London, and the Royal College of Surgeons, England, have passed a regulation to the effect that graduates of the Universities of Sydney, Melbourne, Adelaide, Bombay or Madras would be exempted from the first and second examinations, and would be admissible direct to the final examination for the License of the R.C.P. Lond., or the diploma of the M.R.C.S. Eng., on producing the necessary certificates.

◆

THE Postmaster-General of the United States, America, has ruled that disease germs are to be classed with unmailable articles, no matter how securely they may be sealed.

LEADING ARTICLE.

REPORT OF THE LEPROSY COMMISSION IN INDIA :—AS TO HEREDITY.

By J. ASHBURTON THOMPSON, M.D., D.P.H., FELLOW OF THE BRITISH INSTITUTE OF PUBLIC HEALTH.

◆

II.

THE conclusion at which the Commissioners arrived as to heredity was expressed by them as follows :—*Leprosy in India cannot be considered an hereditary disease. and they would even venture to say that the evidence which exists is hardly sufficient to establish an hereditary specific predisposition to the disease by the offspring of leprous parents to any appreciable degree.* They prefaced their account of the data they had collected by some general remarks (pp. 204-209); and I believe the following sentences comprise everything therein of importance.

Actually, the phrase "inherited disease" is commonly used with reference to two different concepts, namely, "hereditary transmission of disease" and "hereditary predisposition to disease." First of all then, these must be distinguished; and as lepra never has appeared congenitally, hereditary transmission of lepra cannot be spoken of; "the disease itself is not the thing transmitted from parent to child" at all events. In that case a predisposition to lepra alone remains for possible transmission; and that might be either specific or general. A specific predisposition could only be transmitted by a parent already affected, that is, before the child was born (or begotten, rather?). A general predisposition might be transmitted by a parent who possessed it himself, but who was unaffected with lepra; for lepriasis is a contingency of which such a general predisposition is but one member, the other being the *causa causans.* Without concurrence of the two lepriasis (or other such states, as tuberculosis, for instance) could not occur; the contingency would not be realized. Then there is this farther point, that a general predisposition to disease may result from many agents and factors—may be acquired. It is important to keep this in mind when it is proposed to prevent marriages between lepers by law; for, evidently, in that case, the proper object of legislation would be those generally acting agents and factors by which whole populations must be liable to suffer —though they may not, as a population, suffer lepra—rather than the exceptional persons among them who happened to be distinguishable from the rest only by accidental realization of a contingency in them. The same argument applies to the analogous disease tuberculosis and proposed legislation to restrain its communication and transmission. Enquiry must, therefore, be made into the fate of the children of leper parents—provisionally in them an inherited *specific* predisposition may be assumed to exist; and the result must be compared with that of another inquiry into the fate of chidren born of healthy parents who became lepers only after the children were born—provisionally in them an inherited *general* predisposition may be assumed.

These investigations must of course be made by searching the family history of available lepers. Lepers-at-hand must form the starting point, and these, for the sake of clearness, I shall call "basic-lepers" when it seems convenient to do so.

I. No child born leprous was discovered, nor any that became leprous so soon after birth that the disease might fairly be classed as inherited; and none ever has been recorded by any author.

II. Cases in which it was possible to trace a "family taint" in the direct line were few. Parents and children alone were regarded; collateral relationships were left out of account. The relationship between a leper grandparent and a leper child born of intermediate healthy parents was also disregarded, for "atavism can have no place in the ætiology of leprosy," or "of so markedly general a disease as leprosy." Then, at 48 different asylums or places 2,371 lepers were seen, and a family taint was "confessed" in 264 cases, or 11·1 per cent. (specific and general together); and secondly, 130 of them, or 5·48 per cent., "were actually born of a leprous parent or parents" (p. 212), no statement as to relation between the date at which the basic-leper was born and the onset of leprosy in the parent having been available in the remainder (specific only). But in 74 of the 130 "either no statement was made as to the condition of the parent or parents at time of the child's birth, or else some doubt was expressed as to diagnosis" (p. 214),[*] so that 4 per cent. "would perhaps be nearer the mark" than 5·48.

Follows on this the statement that the table which sets forth the above particulars "has been constructed from the cases actually seen by the Commissioners. As, however, many patients" (namely 52) "confessed to having leprous children or parents either deceased or absent, it is necessary to construct another table including all these cases." Accordingly the second statement is that 2,423 cases (2,371 + 52) were seen, and "the number of cases in which a family taint was confessed" was 316 (264 + 52), or 13 per cent. (specific and general together); further, "the number of cases in which parent or parents were lepers at time of birth of offspring" was 146 (130 + 16), or 6 per cent. (specific only).

This percentage (but cf. the footnote above) is higher than that yielded by the preceding table (by ·52 only—not by 2; for thus far the comparison is between gross percentages); but "the number of cases noted as doubtful, or as wanting in the detailed statement is greater."[†] Besides, "as the additional 52 lepers" (not the 52 additional basic-lepers, but their absent or deceased relatives, alleged by them to have been leprous) "could not be seen the suspicion of a wrong diagnosis is not excluded," so that "it may be said that this second table fairly represents a percentage of 4·5" of possible heredity.

III. If a predisposition to lepra were hereditary in appreciable degree, it should have been possible to trace the disease through several consecutive generations "in a sufficiently large number of cases." Whenever a family taint in the direct line "was acknowledged," careful enquiry was made as to condition of the grandparents; but only 18 times could affection of three consecutive generations be discovered (out of the 316 instances of disease in parent and child, therefore). In 6 of them the children were born of healthy parents (who became diseased subsequent to such births), so that in them there could be no question of inheritance of a specific predisposition; in 5 others "the statement was insufficient" or the diagnosis doubtful. "Accepting even all the 18 cases, the ratio would still be less than 1 in 100" (18 out of 2,423 basic-lepers examined and questioned? Perhaps; there is no statement that the 2,423 were in all cases unrelated to each other), and the conclusion, therefore, is that something other than heredity was the true cause of these family occurrences of lepriasis (as, for instance, exposure of the whole family to the same causes, that is to say, under identical conditions of life).[*]

IV. The importance of hereditary transmission as a cause of continuance of the disease would be diminished if it could be shown "with sufficient frequency" that several children might become affected though their parents remained healthy (hitherto the question has been whether hereditary transmission of a specific or general predisposition occurs in connection with lepra? Here this different question is intruded—whether lepra occurs out of connection with possible hereditary transmission? And the answer bears not upon the occurrence of hereditary transmission, but indirectly upon its importance relatively to the share which other causes have apart from it in continuing lepra). At 24 of the aforementioned localities, 101 cases were found in which two or more children had become leprotic while their parents remained healthy, or about 4·5 per cent. (101 out of 2,423 − 316); and in most of these cases no other (more distant) relative was affected. So that while circumstances left the operation of (specific) hereditary transmission possible in about 4·5 per cent. (secs. I and II above); now it appears that the cases in which possible hereditary transmission could be excluded also occurred in the proportion of about 4·5 per cent. of the same series of basic-lepers. The conclusion thus suggested is "that though the disease in a small proportion of cases appears to run in families, this cannot be ascribed to a specific inherited predisposition."

V. When father and mother are both leprotic at the time of their marriage, possible (specific) heredity has freest play. At 17 different places 98 such couples were found; they had 65 children, of whom, it should be particularly noticed, the majority were adults, perfectly healthy, and in some cases were married and had healthy children. Among these 65 only three lepers were found, or if two doubtful cases be reckoned, only five—that is to say 4·6, or at the most 7·6 per cent.; a proportion which, again, agrees closely with those yielded before by calculations made on a different basis.

VI. The possible influence of hereditary transmission could not be disentangled in India from all other and external influences (presence of other lepers, endemicity, environment in general). But at the Almora orphanage the children of leper parents (one or both) were cared for apart from the surroundings in which they had been born and in which their parents had been affected, and apart from other lepers; thus the influence of endemicity alone remained. The facts were ascertained as to 23 such orphans; but three were born before their parents became affected, and five others were under 10 years of age (lepra seldom appears earlier). Remained 15 therefore, of whom, however, three had died at adult ages free from lepra; their ages ranged between 12 and 20 (7 cases) and between 21 and 28 (8 cases); in 10 both parents had been affected, in figures one only; 11 had remained with their parents less than two years, and four for from five to 10 years before admission; and all but two had additionally passed a time in the asylum (before admission to the orphanage) of less than six years and generally of about two years only (so that all had had a prolonged exposure to lepers and to the environment in which others had contracted lepra, as well as being subjects of possible specific hereditary transmission). The average term spent in the orphanage was about 13 years (one in one case to 24 in one; generally 10 or more). Of the 15, one only had been a leper for four years before the date of this enquiry.[*]

---

[*] More than half of the 130 then were not "actually born," &c.

[†] Eighty-three is greater than 74 (for these are the numbers of cases noted as defective or doubtful in the two tables), but the proportionate number is alone relevant. Now 83 out of 316 is less in proportion than 74 out of 264; and as to the other sums, 146 and 130, the proportion is very nearly the same, but still lower in the former than in the latter case.

[*] Criticism is not my present object; but the whole of this chapter is rendered obscure by causes not inherent in the subject, and the extraordinary use of the word "confessed" arrests attention. The important question is thereby raised, Did the Commissioners themselves see all the available relatives of basic-lepers on whose state the use and value of the foregoing figures depend, and therefrom draw their conclusion? After very careful study I have been obliged to suppose they did not, but that they questioned the basic-lepers and then probably examined such leper relatives as were so pointed out to them. But in that case the figures would warrant no conclusion as to the proportion in which lepers have leper relatives. That method, therefore, can scarcely have been followed. Yet it is impossible to draw an answer beyond dispute from the text, the sentence, "Table I has been constructed from the cases actually seen by the Commissioners," seeming to furnish a clear and satisfactory statement only until it is observed that in the table, "cases seen" indicates basic-lepers alone, and, after all, that mere inspection of cases thus pointed out would leave unfulfilled a vital condition of the experiment.

VII. The condition of children born of two leprous parents has been enquired into (sec. V above); now that of "all the children born after the manifestation of the disease in one or other parent" (but it appears a little further on that one or both is meant) "will be considered." The Commissioners could not see all the children, and this source of doubt must be kept in mind. Of 500 children at all ages, born either of two leper parents or of one, 21, or 4·2 per cent., had become lepers; but in eight of these cases the existence of the disease was extremely doubtful. As lepra rarely develops before 10 years of age, however, it is necessary to classify the 500 children: 232 of them were above 10 years old; 150 were between 10 and 16, all born after appearance of the disease in a parent or parents, and 10 of them had become attacked, or 6·6 per cent.; 82 were above 16, all born of a leprous parent or parents, and 6 had contracted the disease, or 7·31 per cent.

VIII. "The influence of an inherited specific predisposition may be studied" (but this should surely stand—the existence . . . . may be questioned) "by the selection of cases in which a family taint in the direct line can be traced, and by an enquiry into the condition of the brothers and sisters." The cases must be divided into two classes, separating those in which *specific* hereditary transmission may be provisionally assumed from those in which only a *general* hereditary transmission can be provisionally assumed (see introduction above). Great pains were taken in the former case to ascertain that the brothers and sisters, as well as the basic-leper, were born after appearance of lepra in the parents; nevertheless the statement on this head remained doubtful, or altogether wanting in some instances, either with regard to the basic-leper or to his brothers and sisters. These imperfect or doubtful cases, however, were treated as though they were known cases of possible specific hereditary transmission, and thus the case against the influence of the latter as a factor in continuance of lepra was not exaggerated at all events. Then 62 patients had 156 brothers and sisters; all, as far as could be ascertained, had a history of possible *specific* hereditary transmission; but only 21, or 13·4 per cent., became lepers. On the other hand, 61 patients who had a history of possible *general* hereditary transmission had 150 brothers and sisters, of whom 31, or 20·6 per cent., were leprotic.[*] "If the cases with insufficient statements be excluded from the former group and added to the latter, yet the ratio would still militate against the influence of an actual heredity . . . . for it could not be reduced below 15 per cent. or 20 per cent." Thus the percentage was much higher in the case of "general" than in that of "specific" hereditary transmission, whereas if hereditary transmission were an operative factor the reverse should have been the case. "The figures are certainly rather small, but yet allow of decisive conclusions being drawn from them" (the proper use of the above figures will not fail to be observed. They furnish a comparison between the fate of two classes of children of whom affection of their parents allowed the investigator to assume that they shared a specific and a general inheritance respectively. They do not indicate any conclusion as to the fate of the children of lepers in general, or of all lepers, for a condition precedent of this enquiry was that at least one parent *and* one child should be affected. When the children of all available leper couples (both affected at date of marriage) were examined it was found, under sec. V above, that they suffered only in the ratio of 4·5, or at the most of 7·6 per cent.; and under sec. VII above, that of the children above 10 born of all available leprous parents, one or both, only 16 out of 232, or 6·8 per cent., suffered; and "all children above 10" is, for practical purposes, nearly equivalent to "all children" for a reason already given).

IX. But now let hereditary transmission be excluded as nearly as possible. Families having been selected in which the parents were not only healthy, but free, as far as could be ascertained, from any family taint in the direct line, but in which, nevertheless, one child at least was a leper, it was found that in 850 such families out of a total of 3,703 children, 947 (850 + 97), or 25 per cent. were lepers; while of 96 families selected as above, but in which at least two children were affected, out of a total of 388 children, 207, or 53·3 per cent., were lepers. "Evidently all that can be argued from these considerations is that leprosy in a certain number of instances has a tendency to affect several members of a family, but that this is not due to a specific hereditary predisposition."

The statements summarized at the end of sec. VIII above, taken in conjunction with the statements contained in sec. IX, afford the best argument against occurrence of an inherited predisposition "specific" or "general;" they are, moreover, least open to criticism on the score of method pursued, or, since the method throughout probably was unobjectionable it may be said—because of failure sufficiently to expound it. We see pretty clearly from them that persons reasonably assumed to be subject to a "general" hereditary predisposition suffered, contrary to expectation, in larger proportion than others reasonably assumed to be subject to a "specific" hereditary predisposition; that is to say, in the proportion of 43 per cent. (61 + 31 out of 61 + 150) against 38 per cent. (62 + 21 out of 62 + 156); and further, that a survey of all the children (at all ages) born of (all available) parents who were not only themselves healthy but free from taint in the direct line, showed that they suffered most of all; namely, in the proportions of 25 or of 53·3 per cent., according as the evidence that the families had been exposed to causes of lepra consisted in affection of one or of two of the children composing them. Thus the opinion of the Commissioners quoted at the end of sec. IV above is supported; and it comes near being established (due regard being had to the number of observations recorded by them) when it is remembered that the children of all available leper couples (both parents having been affected at the date of marriage) suffered only in the proportion of 4·5, or at the most of 7·6 per cent. The obvious inference is that the tendency of the disease to "run in families" has nothing to do with blood relationship, but probably is due to the circumstance that usually families live in the same environment.

---

[*] The age at admission to the orphanage seems to be a point of importance, and it can be calculated from the table from which the above figures have been taken; it was under 10 years in all but two cases, and those were admitted at 12 and at 14. Otherwise the figures would merely show that of 15 persons apparently fully exposed only one had succumbed.

[*] It is not stated that the history of hereditary transmission "general" in the case of these patients remained "general" also for their brothers and sisters; were the latter junior to the patients it might have become "specific" for some of them: however, it is assumed that it remained "general" for all. A more serious omission is that of all reference to the ages of brothers and sisters in both groups; it can only be inferred from the numbers affected that the majority were at susceptible ages.

Now, just as enquiry into the mere possibility of communicating lepra by contagion was at last left aside while attention was concentrated upon the simpler and clinical point whether as a matter of experience lepra is seen to spread (or to be maintained) by contagion; so here the abstract question whether a "specific" or a "general" predisposition to contract lepra possibly can be transmitted from parent to child may be set aside to enquire more particularly whether there is ground to believe that in practice hereditary transmission is an important factor in maintaining the disease. The Commissioners, therefore, most usefully supplemented the investigation above described with another into the fertility of lepers. Suppose the question of possible hereditary transmission to remain doubtful: if lepers were fertile in usual degree the doubt might be of practical importance; but it could be of very little practical importance if lepers were nearly sterile.

X. There were available 1,564 marriages; 71 were contracted between two lepers; 1,493 between a leper and a healthy person; thus the number of lepers concerned was 71 + 71 + 1,493 = 1,635. The issue numbered 2,915; thus the 1,635 lepers contributed an addition to the *general* population of 1,280 persons, for 1,635 of the children merely replaced their leprous parent or parents. But what addition to the *leper* population may have flowed from them? It is certain all the 2,915 children would not become lepers; at the date of enquiry only 78 were affected—but then, though "a certain proportion of them are adults, married, and have healthy children," many were still young. "Taking everything into consideration it is unlikely that more than five per cent. of the 2,915 children will become lepers" (for reasons to be deduced from the earlier part of the enquiry); so that the 1,635 lepers would be replaced by 145 lepers. "Thus there is no danger of a spread of the pest by hereditary transmission and predisposition. In fact the figures show conclusively that not only could there be no increase to the leper population by means of this agency, but that all other causes being removed the disease must die out."

XI. A comparatively high mortality among the offspring of lepers has been so well established by Lewis and Cunningham that the Commissioners felt it unnecessary to do more than state "that a certain number of children born of leprous parents would be probably shortlived."

XII. The reproductive power of lepers is diminished. "It has been shown from Table 4 (Sec. V above) that the issue of 98 marriages between two lepers" (from remarriages they represented but 188 persons) "amounts to only 65. Again, Table 13 shows that of 85 couples" (who represented 168 persons only) "no less than 55, or 64·7 per cent., were sterile. Hence, assuming all the 65 children to live and grow up, according to these figures 168 lepers would be replaced by 65 persons, that is, there would be an actual decrease of 62 per cent. in such a population. Assuming that 5 per cent. of the 65 children became lepers, it seems that 168 lepers would be replaced by 3 or 4 lepers, or if the diffusion of the disease depended on heredity only, there would be an actual decrease of almost 99 per cent. in the leprous population" (in a single generation).*

XIII. As to fertility of marriages between one healthy person and one leper: "It is more difficult to acquire absolutely accurate information from the data obtainable, and the following statements must be regarded as suggestive only" (perhaps a special difficulty in gathering accurate data is here alluded to). Only such persons were chosen as had cohabited for at least 5 years after appearance of the disease in one of them, and all patients over 40 years of age were rigorously excluded. Then of 296 couples of whom the *husband alone* was a leper, 176, or 59·4 per cent., had no issue after appearance of the disease; and of the 120 fertile couples, the offspring numbered only 249, so that under the stated conditions the average number of children to each couple was less than one. Of 88 couples where *wives only* were affected, no children were born to 62 of them after appearance of the disease, and only 49 children were born to the 26 fertile mothers; or, 70·4 per cent. of the women became sterile on appearance of the disease, and the average number of children per couple was considerably less than one. "Though these statistics evidently cannot represent the absolute truth, they at least justify the belief in a loss of procreative power causally related to leprosy, and tend to diminish the fear of a diffusion of the disease through marriage with lepers."

The Commissioners' formal expression of their conclusion as to hereditary transmission was as follows:—"Leprosy is not diffused by hereditary transmission; and for this reason and the established amount of sterility among lepers, the disease has a natural tendency to die out." This the members of the Special Committee accepted, with a single exception: Sir Joseph Fayrer thought the statement, "leprosy is not diffused by hereditary transmission," not proved. The medical members of the Executive Committee (among whom also Sir Joseph Fayrer was included) ended their separate memorandum with the following sentence:—"And we are of opinion that, although an unusual susceptibility of leprosy may be transmitted by inheritance, and the children of lepers may be more than others liable to the disease if living in the conditions in which it generally occurs, this does not supply reason sufficient for prohibiting marriage of the leprous." This opinion gives practical expression to the Commissioners' view that "leprosy is not diffused by hereditary transmission."

At the close of a former portion of this summary account, Hirsch was cited in support of the Commissioners' conclusion that leprosy is not maintained or diffused by contagion; and here I recapitulate his view as to heredity. He ends by remarking that Simpson's opinion holds good to the present day (1881); which was that "few facts in the history of tubercular leprosy seem to be more universally admitted by all writers on the disease, both ancient and modern, than the transmission of the predisposition of it from parents to offspring." And with reference to the evidence which he finally sums up in that quotation, he has the following: he observes, first of all, that many of the best series of observations have been collected in parts of the world where it is especially difficult to get trustworthy information as to the state of health in the family of the leper; and then he makes this very important remark, "that by far the larger number of the recorded cases belong to endemic seats of leprosy; so that there are many cases with the doubt attaching peculiarly to them whether the persistence of the disease in the family is really due to heredity, or whether it should not rather be set down to the fact that each case individually, and quite independently of the heredity factor, had developed itself out of endemic influences." This warning should be writ large in the memory of all who search for evidence on the points both of contagion and heredity; for a logical fault appears to me to run through nearly all the records. It is that prevalence of the disease in particular families is traced either to the one or the other according to predilection in the authors, who usually seem to forget that from an event its cause cannot be inferred, save when one cause alone is possible: but the way in which leprosy spreads is not known; and therefore persistency of lepra in families who have lived under totally identical conditions warrants no inference that such persistence is due either to habitual proximity of the members or to their common blood; for besides those they shared all other conditions of their existence, which latter have generally been neglected—not because they were known to be of no account, but because nothing suggestive had ever been observed in them. This criticism has been forced upon my own mind by considering our cases of lepra in whites born and living in New South Wales; with which, in my opinion, contagion has in all probability nothing to do, and to which the factor of heredity is wanting. But from this grace Professor Hirsch seems to fall away at last. He opens the subject by remarking that "there is only one kind of conveyance of leprosy which cannot be questioned, I mean that which takes place by way of inheritance;" and the nature of the evidence on which he relied in making it is indicated by the following sentence: "The best ground on which to try this question is obviously afforded by the small, closely circumscribed, and therefore easily surveyed, leprosy spots, with a fixed population subject to no changes, where the state of health in the several families may be learnt with the least possible trouble, and followed with certainty through a long series of generations." These, however, are cases to which his own criticism applies with most force or, more exactly, are of that very class on which it appears to have been founded. But this is not a place to discuss the question of heredity; and after quoting Hirsch in his acknowledged capacity of judicial exponent of recorded views, and after mentioning that there is a minority of authors who deny its influence, I proceed to draw attention to two points of great importance, which owe their prominence in this particular connection to the present Report.

---

* I cannot understand this statement, which I have therefore copied. The 65 children belong to the 98 marriages, not to the 85. There is nothing to show whether the 85 are additional to the 98, nor, if not, why the latter number is reduced.

First, then, as to possible heredity: The Commissioners began their enquiry by limiting investigation to the relation which exists between leprous parents and their children, and by excluding all collaterals from consideration. Their view was that if hereditary transmission occurred at all it must become manifest as between parent and child; and provided it were manifested in that simple and immediate relation, then perhaps it might, but then alone it could, be worth while subsequently to extend the quest among collaterals, and to follow the established fact through the mazes of remoter relationship. Only thus could the problem be successfully attacked; yet authors, as a rule, have not seen this, and so it happens that many complicated and scarcely intelligible observations stand recorded to obscure a question which otherwise might surely have been settled long ago.[*]

And secondly, in connection both with heredity and with contagion, they have effectually reminded would-be legislators that even if a general truth have been established social laws cannot immediately be framed in connection therewith, but that it still remains to be learned whether concomitant conditions of the case permit that truth to find expression as a rule, or whether it is usually overborne by them and prevented. If leprosy were proved to be heritable and communicable to the extent that tuberculosis is so—and even so much is far from being the case—yet it would not be wise nor ultimately possible to legislate for prevention on lines indicated by such communication and by such inheritance. There are other considerations to be entertained which affect much more manageable matters; for all present-day experience and thought tend to elevate the importance of personal disposition above that of the pathogenic microbe, which, indeed, is often seen to be powerless when the former is wanting. The so-called practical man, therefore, who is usually disposed to patronize the plodding worker, would do well to restrain his itch to be doing in such matters as these; and this advice the Commissioners have enforced in the lesson before us.

(To be continued.)

LETTERS TO THE EDITOR.

ON IMMUNITY, ACQUIRED AND INNATE, FROM SPECIFIC DISEASE.

(To the Editor of The Australasian Medical Gazette.)

SIR,—The following matter is the resumé of some months' research recently completed. I beg to submit it through *The Australasian Medical Gazette* to the criticism and correction that its able staff and readers can give me.

To trespass as little as possible upon time and space, I will speak but of results and but little of methods. This I will endeavour to do by drawing attention to those salient points in my syllogisms which, missing much that books and my experience interpolate, bring me to the belief that I am near an explanation of my subject.

I have been struck with the "circulus" of defining "immunity" as "tolerance" or "adaptation." I could not believe that such was due to previous destruction of pabulum, for I am as yet ignorant of the nature of such pabulum and of any chemical or morphological constituent of the body which is not more or less rapidly replaced when removed by a physico-chemical process, save when such a process is absolutely destructive. When such a process is destructive, there is a mark set upon the locus; in a destruction of a specific pabulum there has not yet been found a cicatricial mark. It has been suggested that the specific influence, or organism, leaves behind it something inimicable to further attacks.

I have frequently noticed that certain organs are seldom or never attacked primarily by certain micro-organic diseases, also that most pathogenetic bacteria cannot exist save in alkaline media, those of dental caries and enteric fever being the most familiar exceptions. I thought that a critical analysis of, and some research upon, these axioms might discover for me a substitute for the objectionable circulus.

---

[*] Professor Leloir takes cognizance only of grandparents, parents and children; but even he leaves it doubtful (as far as I have acquaintance with his remarkable but voluminous work) whether he admits atavism in lepra. But he ascribes to contagion all that other authors attribute to heredity.

From experience and collation I gathered that primary tuberculosis of the gastric or urinary membranes is rare. This may be due to two causes, either to the tidal performance of the functions of, or to the acidity of the fluids of or in these organs. Tuberculosis of the bladder is more frequent in males than females; the female bladder is less tidal, therefore is less often empty than that of the male, hence the urine has a longer time in the former than in the latter to influence a bacterial invasion. Primary renal tuberculosis commences in the cortex, being found in the interstitial stroma, and does not reach the acid uriniferous tubules, &c., till it has bathed itsef with alkaline pus; in fact the condition is recognized by an alkaline puriferous urine. Koch and Rietsch, before producing cholera in dogs by feeding on choleraic food, had to inject direct into the duodenum or neutralize the stomach contents. Dr. Sandwith, of Cairo, noticed in one hundred necropsies on tuberculosis patients one case only of tubercle *outside* the stomach. In a number of such cases that I have studied, during and after their life, I have noted how a copious swallowing of tubercular sputum has produced gastric hyperacidity, and that when this occurs there is more frequently than not an absence of tubercular ulcers in the intestine. For the above reasons, therefore, I believe in an immunity of certain organs from specific attacks, conferred upon them by their acid condition.

Bacteria can be looked upon as organisms consisting of a cell wall and contents. Between the fluids of the latter and those of the bacterial medium there must be an osmotic process effective upon the weal or woe either of the cell contents or the medium. Such osmosis will be influenced by the relative specific gravity of the fluids considered. Can we influence either of them?

Bacterial products are more soluble in the alcohol series of bodies than in water, parenthetically I may draw attention to the vehicle in tuberculin. Their organic acid salts are also more soluble.

Bacterial products are in many cases fatal to their producers; this may be due to the low solubility of these alkaloids increasing the specific gravity of the medium, or to an effect (fever, &c.) upon the medium, thence the bacterium, by constitutional changes in the patient.

After the above reflections I commenced to experiment with the following bacteria: Bact. ureæ, B. termo, streptococcus pyogenes tenuis, strept. pyogen. aureus, bac. coli communis, proteus vulgaris, bac. subtilis, a coccus from a case of pneumonia, and a bacillus from a tetanised guinea pig. The medium used was nutrient gelatine, and the original pure cultures were in the same medium or upon potatoes. I made four control tests in each series.

Four tubes were labelled A, B, C, and D, respectively. A and B were inoculated and pure cultures produced. B and C were treated in the following way: they were re-sterilized, filtered, and acidified. After a week, during which time no growth appeared in B, they were again neutralized. In four days B, C, and D were re-inoculated. In C and D normal pure cultures were produced; B was barren. Why did B remain barren? The pabulum was not used up, for A was growing. The chemical process did not account for it, as C was fertile. The pabulum was not destroyed by adventitious growth, for D was fertile. The medium was the same; the re-sterilization, chemical treatment, and re-inoculation of B and C was the same; B differed from C only in that it contained bacterial products. Hence I argue that these products were the cause of its barrenness; they were not, however, lethal in the case of A, though there were more of them, but in A their solubility had not been interfered with.

A bacterium can live but in a medium possessing certain physico-chemical conditions; when it has lived in a limited quantity it dies at length from auto-poisoning, or the using up of the pabulum. The body presents certain physico-chemical conditions, which are, or become at times, a fitting medium. A bacterium gains admission into this medium, it multiplies and produces its characteristic effects; this is followed by the death of the patient or that of the bacterium. Possibly the comparative shortness in the duration of an attack of one specific disease as contrasted with another is due to the paucity of the pabulum, or to the exceeding fertility of the attacking force. Be that as it may, the specific diseases characterized by any great pyrexia (vide typhoid and scarlet fever, syphilis and tubercle), are characterised by brevity.

How then, is acquired immunity conferred? An attack is made with success upon the medium; after a while, if the patient lives, the medium fails or becomes toxic to the attacking force, which latter succumbs but leaves certain products. These products, having resulted in the death of the producers when the latter were in large quantities, are sufficient to beat back an attack from a few inhaled, ingested or inoculated. The natural tendency to recovery from specific disease is, I believe, due to an auto-poisoning or altered osmosis of the bacterium, and is the first step towards, and an essential part of, acquired immunity.

As time goes on the products are excreted as such, or in combination, and the acquired immunity may be lost. Bacterial alkaloids are foreign; but having been deposited in non-acid fluids, are removed with difficulty by solution, but may be removed by decomposition.

Acquired immunity, therefore, is due to the remaining presence of a poison, which, produced by a disease, has cured a disease and prevents a recurrence of that disease.

GERALD S. SAMUELSON, M.D.,
Late Govt.-Medical Officer and Surgeon Gundagai District Hospital.

Kangaroo Valley, N.S.W.,

MEDICAL ETIQUETTE.

(*To the Editor of The Australasian Medical Gazette.*)

DEAR SIR,—Would you kindly give me an opinion on the following:—

Another practitioner, who has commenced practice at Annandale during the last few weeks, is joining a Druid's lodge which I have held in Annandale for about two years (since its formation), and of which I have always been a member. Is this in strict accordance with medical etiquette? As I take it, there is only one motive in his action.

Believe me, yours truly,
HAROLD L. CUMMINGS,
M.R.C.S., L.R.C.P. Lond.

Johnston-street, Annandale,
October 26, 1893.

[FOR obvious reasons it is not in accord with the interests or the honour of the profession that any of its members should join a friendly society's lodge, unless he be their medical attendant. We may add that we have made inquiries and find that our correspondent has been misinformed in the matter.—ED. *A.M.G.*]

STRYCHNINE IN SNAKEBITE.

◆

(*To the Editor of The A.M. Gazette.*)

Sir,—Many who have passed criticism on the experiments I made to test the value of strychnine to counteract the deadly effect of snake venom on guinea-pigs, have remarked that more strychnine should have been given by me; that the virtue in Dr. Mueller's successful treatment of snakebite lay in the fact that enormous doses of the drug could be tolerated, doses that would produce convulsions, and even death, in healthy subjects.

Now I have often wondered upon what grounds these statements could have been made, for I gave to my guinea-pigs quantities of strychnine only short of the lethal to them, and I have yet to learn that comparatively larger amounts (lethal doses) have been given to human beings treated by this method for snakebite.

The question of course hinges on what is a lethal dose of strychnine. Taylor in his works on jurisprudence fixes it at from a-half to two grains. Assuming one grain as a lethal dose for the average man, would it, I ask, be likely to prove fatal if swallowed in divided doses over a period of two or three hours? I think not. Hypodermically, probably half a grain would always produce death if administered in one dose, but surely this amount would not with certainty cause a fatal issue if given in divided doses, say in tenths of a grain every half hour!

The total amount of strychnine given to a case of snakebite treated in the method suggested by Mueller has seldom exceeded a lethal dose, and administered as it has been in divided doses over a period of hours, it could, I think, be well borne by the healthy subject.

There is an apparent tolerance of the drug in snakebite, the explanation of which, as I have before remarked, is that the depressed state of the tissues, especially of the reflex centres in the cord, is such as to impede, and in genuine and severe cases of snake venom poisoning, to entirely prevent the transmission of impulses to the muscles.

Schmiedeberg says that it is frequently found impossible to produce a slight strychnine effect, *i.e.*, twitches, without at the same time producing convulsions.

I recently had the opportunity to treat a man who had swallowed several grains of strychnine with a suicidal intention; half an hour afterwards, whilst walking in his bedroom, he was brought suddenly to the floor in a convulsion, and the noise caused aroused the household. The treatment adopted was to keep the patient under chloroform, to empty the bladder occasionally, and sponge the skin with the hope of aiding elimination. Although his life was despaired of, he recovered. So long as he remained under chloroform no twitches or convulsions manifested themselves, but for hours, whenever he was allowed to come to, he got most violent convulsions.

Snake venom and chloroform are analogous in so far as they are both able to set aside strychnine convulsions, and I should like to assure those who treat snakebite with strychnine that they cannot rely upon the absence of twitches as an indication that the drug can be pushed with impunity.

Dr. Creed's most excellent paper, "Fear as a factor in producing many of the alarming symptoms following the bite of Australian snakes," published in the transactions of the first Intercolonial Medical Congress, September, 1887, should be carefully studied by every practitioner in Australia, and indeed in every country where snakes abound. There is more common sense on the snakebite question in his paper than in any I have ever read before or after.

In medicinal doses, as a respiratory stimulant, it is rational enough to make use of strychnine when indicated, but to have recourse to it in every case of snakebite seems to me ridiculous.

Hypodermic injections of water would, in my opinion, produce quite as, if not more, brilliant results in Australian snakebite as strychnine can. It would of course be necessary to assure the patient and his friends that it was Dr. Mueller's antidote which was being used. I hope some practitioner, who may have the opportunity, will give water a trial and record the result in the *Gazette*; some such experiment would go further to prove the efficacy or otherwise of strychnine than any number of physiological experiments upon the lower animals.

I am, Sir, yours, &c.,
THOS. L. BANCROFT,

Brisbane, June 14, 1893.

THE PERT CASE.

◆

(*To the Editor of The Australasian Medical Gazette.*

Sir,—Permit me to correct some errors which appeared in your article on the above case in your September edition.

You state that "Dr. Tarrant, when called as a witness, *apparently in support of the views of Dr. Milford*, said that he had never known of a death occurring from violence without there being external marks on the body."

In this sentence alone you make two mistakes, as in the first place I was not called to support or oppose the views of any of the medical witnesses, but with others was asked by the counsel for the defence if I had ever seen, heard, or read of a case where rupture of the vertebral artery had been caused by a kick or a blow. I replied to this question in the negative. In the second place I never stated that I had never known of a case of death occurring from violence without there being external marks on the body. Such a statement would be a mere absurdity, as any man of even small experience must have met with cases where death was produced by the rupture or laceration of some internal organ, produced by violence, without any external marks appearing on the body.

I think it was a great pity that the vertebral artery was not preserved as a pathological specimen, and the exact seat of the rupture, if *any*, discovered.

Yours faithfully,
HARMAN J. TARRANT.

Macquarie and Hunter streets,
Sydney, October 10, 1893.

INFLUENZA OR INFLUENZOID?

◆

(*To the Editor of The Australasian Medical Gazette*).

Sir,—For many years we have been in the habit of calling the epidemic catarrhal complaint so prevalent now, influenza, but the recent epidemic of true influenza has left us without a name for the commoner catarrhal disease. I beg to be allowed to suggest the name influenzoid for this disease, following the analogy of the word typhoid.

I am, yours, &c.,
RICHD. R. HARVEY, M.B., Ch.B.
Surgeon Wentworth Hospital.

Wentworth, N.S.W.,
July 3, 1893.

A QUESTION OF MEDICAL ETIQUETTE.

(To the Editor of The Australasian Medical Gazette.)

SIR,—I am perplexed as to what I should do under the following circumstances :—

On succeeding to this practice I found that my predecessor held a club appointment in the next township, which supports two medical men. It was the custom for him and them to visit each other's districts three times a week. Not having found this satisfactory, I wrote to my neighbours, asking them to discontinue visiting my township, and, as an inducement, I offered to give up the appointment to which I had succeeded on purchasing this practice. Since then, owing to carelessness or their failure to give satisfaction, my neighbours have lost ground with the clubs, of which there are three, and the appointments have been offered to me.

Would I be justified in accepting these if I wrote to my neighbours, negativing our former or present arrangement? If I do not accept it is quite probable that another will.

I enclose my card, and remain,

Yours faithfully,

TAS.

10th October, 1893.

[WE are of opinion that under the circumstances as stated, our correspondent would be justified in accepting the appointments now offered to him, after giving his *confrères* in the neighbouring township notice of his intention to do so.—ED. *A.M.G.*]

DISMISSAL OF GOVERNMENT VACCINATORS.

SIR,—I am just in receipt of the following letter :—

"Board of Health.

"Offices : 127, Macquarie Street,
"Sydney, 5th July, 1893.

"SIR,—I have the honour to inform you that in consequence of no returns of vaccinations performed by you having been received since the date of your appointment on 26th February, 1886, as Government Vaccinator for Newcastle, the Governor, with the advice of the Executive Council, has been pleased to cancel your appointment to such office.

"I have the honour to be, Sir,
"Your obedient Servant,
"A. STUART,
"Medical Adviser to the Govt."

Now, in view of the fact that there does not exist in this colony any legal enactment by which parents are compelled to swallow their convictions and prejudices concerning vaccination, and bring their children to the surgery of a government vaccinator for immolation on the altar of preventative medicine, I think the action of the Board of Health towards a few government vaccinators is disingenuous and annoying in the extreme. So long as parents disbelieve in the practice of vaccination, are free from any legal restraint and can exercise their own judgment in the matter, they will not subject their children to vaccination; and as a consequence the vaccinator is powerless to furnish the returns of vaccination in accordance with the dictates of an exacting board. If vaccination were compulsory, and a vaccinator had failed to supply his returns, a charge of dereliction of duty might be reasonably preferred against him, and the drastic remedy of dismissal imposed with justice. As the matter now stands the loss of the appointment of government vaccinator is insignificant, but if future legislation is adopted the emoluments of the position may be a valuable addendum to one's practice, and which a man can ill afford to lose in the present struggle for existence in our overcrowded profession.

I am, Sir, &c.,

PHYSICIAN.

Newcastle, July 7, 1893.

STRYCHNINE IN SNAKEBITE.

A CASE OF SNAKEBITE TREATED BY HYPODERMIC INJECTION OF SULPHATE OF STRYCHNIA—RECOVERY.*

BY SURGEON-CAPTAIN J. C. VAUGHAN, I.M.S.

JUNE 23, 1893.—Hazari Lal, aged about 24, a Hindu male of good physique, a convalescent prisoner in the gaol hospital at Monghyr, was lying asleep on the ground near his bed. It was a hot night, with but little breeze, and he had left his bed to sleep opposite the window, the gratings of which reach the level of the floor. While dozing he felt a snake crawl over him, and reached his hand down to draw his blanket close to him. As he did so the snake seized him by the ulnar edge of the hand and held on to him so firmly that he had to tear it off him before he could fling it away. The snake unfortunately escaped, but the man says it was about as long as his arm. He cried out that something had bitten him, but was apparently not very much alarmed, as he tried to compose himself to sleep. Pain in the limb becoming severe, he called for help and asked for water, but apparently in a very short time he became unable to speak on account of the great pain and sense of constriction in his throat. The gaoler and native doctor both appeared, and could get nothing much out of the man, when they noticed that he was salivating freely. This was at nearly 10 p.m., and the man had been bitten 15 or 20 minutes previously. I was sent for at once, but was unfortunately out, and it was not until nearly 11.15 that I saw him. He was then lying nearly on his back with his eyes half open, with a drowsy look in them. Jaws apparently set, retching frequently but rather weakly, while a thick frothy saliva flowed rather copiously from his mouth. While I was watching him he had a convulsive seizure, followed in a minute or two by a second one. Pulse 84, quiet and regular. Respiration could not be very well taken on account of the frequent retching. On examination, one distinct deep puncture and a scratch close to it were found on the inner edge of the right hand, above and behind the hypothenar eminence. He also complained by signs of a painful sense of constriction of the throat and chest, and was quite unable to speak, though trying to do so. A one per cent. solution of sulphate of strychnia in water and dilute acid was quickly prepared, and at 11.20 p.m. I gave him 15 ♏ hypodermically into the right forearm. This seemed a large dose, but the case was obviously *in extremis* and a desperate one. By 11.30 there seemed no difference except that he was, perhaps, a little more awake, so 10 ♏ more were injected. By 12 midnight he seemed to suffer less from exhaustion and to notice things a little more, but was still very drowsy and quite unable to speak. Another injection of 5 ♏ was now given. By 12.10 a.m. he was much in the same condition and continuing drowsy, so 10 ♏ were again injected; still salivating freely. At 12.25 a.m. the following note was made: Retching very much less; sitting up; constriction of the throat much less, but makes signs to intimate that he cannot speak because of it. Is still drowsy; pulse 84; respiration regular, 12·26; seems improving, but salivating still a little. At 12.40 again tries to sit up; makes signs that his head is swimming, but on being questioned signs that this is not so bad now; constriction in chest not so bad now, still cannot speak; salivation practically ceased.

---

* Reprinted from the *Indian Medical Gazette* for August, 1893.

At 12.40 another fit of retching, and after it an unsuccessful attempt to pass urine. Another hypodermic of 5♏ given. He has now had in all 45♏ of a one per cent. solution of strychnia in the course of an hour and 20 minutes, and there has not been as much as a trace of tetanic spasm. On the contrary, the convulsive seizures noted before the exhibition of strychnia absolutely ceased with the first dose of the drug.

1.20 a.m.—Has had about 15 minutes sleep, and has now just passed about 18oz. of clear urine. Complains of tingling sensations in the limbs and mouth (makes signs to that effect and answers to leading questions). His head is better now, not swimming; lies down to rest.

1.45 a.m.—Becoming restless again and inclined to retch. Appears uneasy; 5♏ of strychnia solution again injected relieved him at once.

2.30 a.m.—Has been asleep till a little while ago. Is again becoming restless and inclined to vomit and retch. Strychnine injection of 5♏ repeated. Again relieved at once.

3.5 a.m.—Has been asleep since last injection, but is now retching again. Injection (5♏ of strychnine solution) repeated.

5.20 a.m.—Seems wonderfully better; much stronger; can stand by himself; speaks clearly for the first time; no choking or constriction in the throat, but a tingling sensation down the middle line of the chest. Has had a sound sleep since the last injection. After this his recovery was complete, and without further interruption. His appetite was rather poor that day (24th June) and the tingling in the chest did not wear away till the evening of the 24th. There was no pain or swelling at the seat of the bite after 3 a.m. on the 24th.

There are some noteworthy features in this case. (1) It is a pity the snake escaped. That the case is one of snakebite I do not think anyone will deny. The man's definite and clear statement that he tore the reptile off his wounded hand and flung him from his side, coupled with the observation of the mark of the bite, goes far as positive evidence. Add to this the fact that the Monghyr Fort, where the gaol is situated, is full of snakes, especially cobras and kraits.

(2) What snake was it that bit him? He clearly says it *did not hiss* when it bit him. This is really the only point which in my experience (now extending over a fair number of cases) is in favour of a krait bite, and against the idea that it may have been a cobra. I have known a case live as much as nearly two hours after a bite from a cobra. From the extreme degree of a sense of constriction of the throat and chest, the onset of convulsions without muscular twitchings between the seizures, and from the subsequent absence of local inflammation at the seat of the bite, I should be inclined to think the offender here was a young cobra. I have noted in the *Indian Medical Gazette* of August and September, 1892, a few cases of recovery after snakebite where a large krait was used in experiment, but in all these recoveries there was a local lesion. In the one case of recovery after a cobra bite (experimental, not the case now reported) which I have known, there was no local lesion. This experience is certainly limited. It may be taken for what it is worth, and I do not wish to insist that the present case was one of a bite from a cobra, but that it was a dangerous case of a bite from a poisonous snake I think may be clearly granted.

(3) The case under notice had in all 60 minims of a one per cent. solution of strychnia given in the course of three hours and forty-five minutes, and throughout its whole course there was not one single trace of tetanic spasm, and that in spite of the fact that I began with the huge dose of one-sixth of a grain, followed in ten minutes by one-tenth of a grain more. The ordinary B. P. dose for hypodermic injection is one-fiftieth of a grain. In all, this patient had three-fifths of a grain hypodermically, and not only were there no tetanic spasms, but the restlessness and retching were positively relieved, and sleep *followed* at any rate. Even though we may refrain from saying that it was *induced*, I shall certainly give strychnia a further trial.

A CASE OF SNAKEBITE—STRYCHNIA TREATMENT—RECOVERY.*

BY DR. REDDIE, CIVIL SURGEON, HARDOI.

AT about 6.30 p.m. on the 10th instant a girl between 13 and 14 years of age, caste Bunnia, was brought to my bungalow by her frieds in a perfectly unconscious condition. It was said that about one and a-half hours ago she was bitten by a snake lying inside the house amidst a heap of dried cowdung. The snake was said to have raised its hooded head and struck at the girl. There were two minute punctures near each other on the dorsum of the index finger of the left hand close to the nail. No extravasation of blood was visible around punctures. The hand was congested, owing to ligature at varying distances having been put round the arm of forearm. Unconsciousness is said to have set in about half an hour after the bite. I keep ready for use liquor strychnia (B.P.) Ten minims of this solution was at once injected into the left arm. The girl made no resistance or showed the least sensation during the injection. In 10 minutes I repeated the injection, this time on the right arm. She now resisted and struggled, and broke the point of the needle. With a change of needle, and by having her securely held, 10 minims were successfully injected. As she could be made to understand, 10 minims of solution were given by mouth. She could now open her eyes, and though still in a stupor, she could be roused. She was walked about. In a quarter of an hour from last injection 10 minims of solution were injected. She struggled and had to be held. An ounce of whisky diluted was also given by mouth. Soon after this third injection she had quite recovered consciousness, and described to me how she was bitten, and that the snake was black with a hood—no doubt a cobra. I gave her two more doses of solution by mouth by 9 p.m. She was now quite recovered, but as it was still to be feared that symptoms of poisoning might return, she was kept at my bungalow. She took food, and was allowed to go to sleep, but her friends were told to watch and rouse her every half-hour to be sure that she had not relapsed into stupor. At midnight I saw her again. By next morning she continued well, and was permitted to go home.

In all three-tenths of a grain of strychnia (three injections of 10 minims each) were injected hypodermically, and the same quantity given by mouth, so that altogether she took six-tenths of a grain of strychnia.

---

* Reprinted from the *Indian Medical Gazette* for September, 1893.

The following telegram appeared in the Sydney *Daily Telegraph* of Saturday, October 7 :—

"Cowra, Friday, October 6.—On Wednesday a young man named Stibbard was bitten by a snake whilst ploughing. Symptoms of poisoning set in, and Dr. W. R. Cortis then applied the strychnine remedy with great success, the effects of the poison being completely subdued."

The following paragraph appeared in the Melbourne *Argus* of Wednesday, October 25 :—

"Heathcote, Tuesday.—A young married man, named Alexander Wilkie, employed on Mr. Lewis's farm about 10 miles from here, was bitten by a brown snake on his little finger this afternoon. Dr. Bond injected strychnine and cauterized the wound, and so far serious symptoms have not presented themselves."

REVIEWS.

Handbook of Materia Medica, Pharmacy and Therapeutics. By Saml. O. L. Potter, A.M., M.D., M.R.C.P. Lond., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco.

We have pleasure in commending the fourth edition of this excellent work to our readers. It is a monument of persistent industry. There is no better book in the English language for the student and practitioner. In this edition several of the new remedies receive consideration, and the whole subject of materia medica is brought up to recent date. Therapeutics have received most careful attention, and a sensible mean has been kept between the sanguine optimism of a well-known writer and the scepticism and nihilismus of some of our Continental brethren. Judging from Sir Richard Quain's remarks to the General Medical Council, there is every likelihood of pharmacy and therapeutics occupying a much more important place in the curriculum of the student than they do at present. Dr. Potter's book is thoroughly practical, and Part III contains an enormous amount of information, for which the student ought to be grateful. The note on the therapeutics of carbolic acid is rather too short for the important *rôle* played by that potent poison. It is to be hoped that it is not true that many of the most prominent surgeons have abandoned it altogether in favour of other germicides. Sir Joseph Lister sticks to it, and believes it to be the best of all. Under the heading "Ether Compared with Chloroform," we find "the reported cases of fatal chloroform narcosis number about 500; those from ether about 80." A bald statement like this is of no value whatever. The chapter on prescriptions is especially well done, in fact the best we have seen. Dr. Potter says, "it is pitiable to see a doctor write ignorantly of even the genitive case-endings of the drug names which he uses. The teaching of Latin is not within the scope of this work, and hence this part of the subject will be dismissed with the advice to the physician who is ignorant of that language to write his prescriptions wholly in English if he cannot write them in decent Latin." This is a sage piece of advice—it would be well if it were taken and acted upon. The latinity of doctors generally is shocking. It is no wonder that Huxley wished to see Latin expunged from the subjects of the medical curriculum when those who have passed the portals of the profession exhibit daily such crass ignorance of the simplest rudiments.

Lectures on Mental Diseases. By Henry Putnam Stearns, M.A., M.D. Philadelphia : Blakiston, Son and Co. 1893.

There is such a wealth of English literature of the very highest class in this special department that this work will not prove of much interest to our readers. These lectures, though doubtless of moment to the class of Yale University, fall short of furnishing a complete guide to the general practitioner. The lectures are of unequal merit and do not cover the whole ground. There is a good chapter on the classification of mental diseases; the author's criticisms on some of the forms in vogue are trenchant. This classification into Symptomatological and Ætiological Insaniæ is good, but purely for convenience. The lectures on general paresis are exhaustive, and present a fine clinical picture of this protean malady. The clinical examples given throughout the work are full of detail. There has been in the past a disproportionate amount of attention paid to the clinical aspects of insanity, and Dr. Stearns has not risen out of this groove. There is an appendix giving extracts from the laws of the different States and territories of the United States which relate to the general care of the insane. This will be of interest to American readers, but from what we can gather, lunacy laws in New South Wales are even more satisfactory.

A Handbook of Obstetric and Gynæcological Nursing. By Thomas More Madden, M.D., F.R.C.S. Edin., Obstetric Physician and Gynæcologist, Mater Misericordia Hospital, Dublin. Fannin & Co., Grafton-street, 1893.

This is an excellent manual, written by a man of high professional status, who very properly deems it no condescension to go into the minutest details, well knowing the profound importance of the little things in nursing the sick. The work is eminently practical, and is, perhaps, one of the most trustworthy guides that could possibly be put into the hands of a nurse; but while it explains much, it postulates a considerable degree of intelligence in the reader. The very best of advice is given in a kindly way to the nurse, and she is especially warned against poaching on the doctor's preserves, an infringement of which modern nurses are constantly guilty. We are very glad to see Dr. More Madden objecting to vaginal injections prior to delivery. The practice of injections before or during labour is antisepticism run mad—a work of superogation. Injections destroy the acid secretion of the vagina, which has been shown to be inimical to the very worst septic poisons. We should like to see a copy of this work in the hands of every midwife and gynæcological nurse. If the wise advice given in these pages were followed, how much happier would be the lot of suffering women!

An Impostor.—*Medical men* residing in Sydney and suburbs are cautioned not to allow themselves to be imposed upon by a foreigner, apparently a Swede or Dane, going under various names and pretending to be a medical man, who tries to obtain money by telling plausible but untrue stories; and from information received we know that he has obtained various sums from a guinea to thirty shillings by pleading that he had obtained an appointment as *locum tenens* at Bathurst through the publisher of this journal, who advanced him a guinea, and that he required another thirty shillings to enable him to leave for Bathurst by the first train.

THE MONTH.

NEW SOUTH WALES.

The excessive mortality which prevailed in Sydney and suburbs during September, viz., 77·72 per cent. above the average of the previous five years, was due to the epidemic of measles, which carried off not less than 230 persons.

The deaths of child-bearing women in Sydney and suburbs during September were 12, or one death of a mother to every 95 children born alive.

The proportion of deaths registered in Sydney and suburbs during September to every 1,000 of the population was 1·78.

The Principal Under-Secretary has been appointed a member of the New South Wales Board of Health.

A woman residing at Darlinghurst (Sydney), was found to be suffering from smallpox on October 25.

A natural soda spring, reported to possess excellent properties, has been discovered near Bungonia, about 10 miles from Goulburn. The water contains carbonate of soda, carbonate of lime, magnesia, iron and sulphur, and is well charged with carbonic acid gas.

Of a number of samples of water taken from premises registered under the Dairies Supervision Act and analysed by Mr. Hamlet, Government Analyst, 42·7 per cent. were found to be unfit for human consumption.

The Maclean Hospital authorities have added a ward for private patients.

A "Hospital and Dispensary for women," intended to afford medical and surgical relief to the poor and necessitous, to provide medical assistance and nursing to poor married women at their own homes during accouchement, and to give nurses an opportunity for receiving instructions in obstetrical nursing, has just been opened in Sydney at 207 Hay-street, Belmore Park.

At the last annual meeting of the New South Wales Deaf, Dumb, and Blind Institution, Dr. W. C. Wilkinson was elected Honorary Physician, and Dr. Thomas Dixson Honorary Aurist and Oculist of that institution.

Dr. J. Bott, of Balmain, has been presented by the members of the local Volunteer Fire Brigade with a handsomely-illuminated address, expressive of appreciation of the recipient's services as Honorary Surgeon for the past few years.

Dr. Terence A. Green, a graduate of the Sydney University, has commenced practice at Wagga Wagga.

Dr. J. A. Langdon has commenced practice in Sydney at 405 Riley-street, Surry Hills.

Dr. W. Kerr Lochhead has commenced practice at Summer Hill, a favourite suburb of Sydney.

Dr. C. Gordon MacLeod, late of Adelaide, has commenced practice as an Ophthalmic Surgeon at 26 College-street, Hyde Park, Sydney.

Surgeon-Captain Swanston, formerly of Mudgee, has commenced practice at 285 Elizabeth-street, Hyde Park, Sydney.

Dr. E. Yeates has removed from West Maitland to Quirindi.

NEW ZEALAND.

The death-rate per 1,000 persons living during September was 0·82 for Dunedin, 0·90 for Auckland, 1·26 for Christchurch, and 1·42 for Wellington.

Dr. J. W. Darby, a recent arrival, has settled at Ponsonby, a suburb of Auckland.

Dr. H. R. Hatherly has commenced practice at Wanganui.

Dr. R. S. Reid, of Timaru, has been promoted to be Surgeon-Major in the New Zealand Artillery Volunteers.

QUEENSLAND.

The members of the Railway Ambulance Class have presented Dr. John Thomson, of Brisbane, with a slight token of their appreciation of the lectures he has given to the men of the department. The presentation took the form of a gold medallion, suitably inscribed.

Dr. F. Challands has removed from Maryborough to Eidsvold.

SOUTH AUSTRALIA.

Dr. W. H. Harrison has settled at Carrieton, 199 miles N. of Adelaide.

TASMANIA.

The proportion of deaths registered during the month of September to every thousand of the population of Hobart was 2·25, and of Launceston 1·47.

Dr. P. K. O'Brien, House Surgeon at the Hobart General Hospital, has been appointed Assistant Resident Medical Officer at the Hospital for the Insane, New Norfolk, *vice* Dr. Crampton, deceased.

VICTORIA.

The proportion of births registered in Melbourne and suburbs during September was 2·68 to every thousand of the population, and of deaths 1·35 per cent. Males contributed 53 per cent., and females 47 per cent. to the mortality of the month.

An illegitimate child, three months old, which had been farmed out, died recently in Melbourne from starvation. Its weight was only 5½lb.

Drs. D. Grant and W. Gardner, of Melbourne, propose to start a medical journal of their very own, with a formidable array of local editors in all the colonies, under the title of *The Intercolonial Quarterly Journal of Medicine and Surgery*. The first number is announced to appear on December 1, 1893, *provided* 250 subscribers can be found willing to pay up one guinea each prior to that date; and as the abovenamed gentlemen "confidently expect that this number will be exceeded," the first issue of their journal may confidently be expected to appear in a fortnight's time.

Dr. Thomas Heron Steel, M.D. Glas., L.F.P.S. Glas. 1860, died at his residence at Toorak, near Melbourne, on the 26th October, at the age of 57 years. The deceased gentleman arrived in the colony in 1861, when he commenced practice at Creswick. Some years later he removed to Horsham, where for a lengthy period he held the positions of Surgeon to the local hospital, and Health Officer, Public Vaccinator and Coroner for the Wimmera district. In 1882 he left Horsham for Toorak, where he resided ever since.

Mr. William Sinclair Sutherland, L.R.C.S. Edin. 1835, an old colonist, expired at his residence at Karn Hill, Charam, near Harrow, on October 16. The deceased gentleman, who was 80 years of age, had practised his profession in the Harrow district for about 36 years, and more than 50 years have elapsed since his arrival at Portland. His widow, two sons and two daughters survive him.

DR. EDGAR A. BARRETT has returned from England, and commenced practice at Hawthorne, a suburb of Melbourne.

DR. J. E. BUTCHART, a new arrival, has commenced practice at Hawksburn-road, South Yarra.

DR. S. CONNOR, formerly of Coleraine, and late of Geelong West, has returned to Coleraine and resumed practice.

DR. P. GUINAND, formerly of Renmark (S.A.), is now practising at Footscray, near Melbourne.

DR. C. DE W. HEARD, late of Macarthur, has settled at Werribee.

DR. J. MCINERNY has succeeded to Dr. A. Grant's practice at North Carlton.

WESTERN AUSTRALIA.

DR. ARTHUR BADOCK, late of Blackheath, London, S.E., has settled at Onslow, the shipping port of the Ashburton district, on the north-west coast of the colony. Dr. Badock has been appointed Resident Medical Officer of the Ashburton district and Quarantine Officer at the port of Onslow; also Public Vaccinator of the urban and suburban districts of Onslow and the rural district of Ashburton.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

BOOTH.—On the 10th October, at South Brisbane, the wife of Dr. James Booth, of a daughter.

CRAIG.—On the 6th October, at Ringwood, Vic., the wife of W. J. Craig, M.B., B.S., of a son.

JACKSON.—On the 4th October, at the General Hospital, Brisbane, the wife of E. S. Jackson, M.B., of a son.

MOORE.—On the 10th October, at Springsure, Queensland, the wife of John Irwin Moore, of a son.

NASH.—October 19, at Wallsend, N.S.W., the wife of Dr. Nash, of a daughter.

PRAAGST.—On the 7th October, at Horsham, Vic., the wife of Dr. L. F. Praagst, of a son.

WILLIAMS.—On the 13th October, at Prahran, Melbourne, the wife of H. E. Williams, M.R.C.S. Eng., of a son.

WOOD.—On the 18th October, at South Yarra, Melbourne, the wife of W. Atkinson Wood, M.D., of a daughter.

WOODFORDE.—October 12, at Goondiwindi, Queensland, the wife of S. Ridout-Woodforde, M.B., C.M. Ed., of a son.

MARRIAGES.

JOYCE—RAMSAY.—On the 17th October, at St. Andrew's Church, Adelaide, Edith Charlotte, second daughter of John Ramsay, Adelaide, to Alfred Fleming Joyce, M.B., B.S., of East Brighton, Vic.

MONSELL—WYLY.—On the 28th September, at Christ Church, North Adelaide, Frederick William Monsell, L.R.C.S.I., of Crystal Brook, S. A., to Kathleen Beatrice, eldest daughter of A. P. Wyly, St. Peters, Adelaide.

MULLEN—BROWNING.—On the 7th October, by the Rev. John Beattie, William Lowell Mullen, M.D., LL.B., to Louisa Alice, fourth daughter of John Henry Browning, M.D., Health Officer, Point Nepean, Vic.

PURSER—BRIERLEY.—On October 11, at the Congregational Church, Burwood, Cecil Purser, M.B., Ch.M., to Louie, fifth daughter of James Brierley, Burwood, Sydney.

REID—DAVIS.—On the 4th October at Camperdown, Vic., by the Rev. F. Robinson, George Marr Reid, M.B. *et* Ch.M., Cobden, to Mildred Marian, only daughter of E. J. Davis, late of Warrnambool, Vic.

ROLLASON—SILL.—On the 18th October, at St. John's Church, Heidelberg, Abel Rollason, L.R.C.P. Lond., M.R.C.S. Eng., to Edith, second daughter of the late Mark Sill, Heidelberg, Vic.

WHITE—HICKOX.—On the 20th September, at St. James's Church, Traralgon, Vic., James Purves White, M.B., of Muswellbrook, N. S. W., to Ellen, second daughter of Mr. F. G. Hickox, of Traralgon.

PUBLICATIONS RECEIVED.

The Operative Treatment of Enlargement of the Prostate By C. W. Mansell Moulin, M.A., M.D., F.R.C.S. London: John Beale and Sons, 1892.

The Surgical Diseases and Injuries of the Stomach and Intestines. By T. B. Jessett, F.R.C.S. London: Baillière, Tindall and Cox, 1892.

Zymosis and Pathogenesis. A Bacteriological Sketch. Second Section, part 11. London: J. L. Fellows, 1892.

A Bibliography of Australian Economic Botany. Part 1. By J. H. Maiden, F.L.S., F.C.S., &c. Sydney: Charles Potter, 1892.

Notes on the Clinical Examination of the Blood and Excreta. By Sidney Coupland, M.D., F.R.C.P. 3rd ed. London: H. K. Lewis, 1892.

On Hospital Federation for Clinical Purposes. A suggestion. By J. E. Erichsen, LL.D., F.R.S., F.R.C.S. London: H. K. Lewis, 1892.

The Diseases and Deformities of the Fœtus. An attempt towards a system of Ante-natal Pathology. By J. W. Ballantyne, M.D., F.R.C.P.E., F.R.S.E., with plates and other illustrations. Vol. 1. Edinburgh: Oliver D. Boyd.

Manual of the Practice of Medicine. Prepared especially for Students. By A. A. Stevens, A.M., M.D. Illustrated. Philadelphia: W. B. Saunders, 1893.

Notes on the Newer Remedies. Their therapeutic applications and modes of administration. By David Cerna, M.D., Ph. D. Philadelphia: W. B. Saunders. 1893.

Manual of Medical Jurisprudence and Toxicology. By Henry C. Chapman, M.D., with 36 illustrations, some of which are in colours. Philadelphia: W. B. Saunders, 1893.

Transactions of the Royal Academy in Medicine in Ireland. Vol. 10. Edited by W. Thomson, M.A., F.R.C.S. Dublin: Fannin and Co., 1892.

Symptoms and Physical Signs: A Formulary for Clinical Note-taking, with examples. By William Ewart, M.D. Cantab., F.R.C.P. London: Baillière, Tindall and Cox, 1892.

The Hygiene of the Ear. By Dr. Vincenzo Cozzolino. Translated from the fifth Italian edition by J. Erskine, M.A., M.B. London: Baillière, Tindall and Cox, 1892.

A Manual of Practical Medical Electricity. By Dawson Turner, B.A., M.D., F.R.C.P. Ed., M.R.C.P. Lond. London: Baillière, Tindall and Cox, 1893.

Cheyne-Stokes' Respiration. By Geo. A. Gibson, M.D., D. Sc., F.R.C.P., F.R.S.E. Edinburgh: Oliver D. Boyd, 1892.

The Annual Report of the Health of the Imperial Navy, for the 24th year of Meiji (1891). Tokyo.

WANTED, *The Australasian Medical Gazette*, Vol. VI, No. 1 (October, 1886) by the Secretary, Health Department, 127 Macquarie-street, Sydney.

TO SURGEONS AND OTHERS.

Applications for the position of Surgeon to the Boulia Hospital are hereby invited. Applicants must state salary with, and without, right of private practice. Applications, endorsed "Application," must be in the hands of the Secretary, Boulia, not later than January 4, 1894. The successful applicant will be expected to dispense his own drugs.

Boulia, Queensland, 19th October, 1893.

REPORTED MORTALITY FOR THE MONTH OF SEPTEMBER, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. Wales.																
Sydney	111,244	277	244	129	76	4	3	...	2	...	18	26	11	10	1	7
Suburbs	275,615	860	490	259	144	9	11	1	2	3	36	64	20	7	1	5
New Zealand.																
Auckland	31,268	79	28	7	...	...	...	...	...	...	...	...	4	4	...	...
Christchurch	16,704	26	21	10	2	...	...	1	...	...	...	3	2	1	...	...
Dunedin	23,302	34	19	6	1	...	...	...	...	...	...	3	3	...	...	...
Wellington	33,786	77	48	22	8	...	2	...	...	...	2	3	...	4	...	...
Queensland.																
Brisbane	56,075	155	59	19	6	...	2	...	...	4	12	10	3	3	...	1
Suburbs	37,582	147	37	17												
South Australia	337,321	975	432	200	80	...	9	1	3	3	34	55	41	16	...	5
Adelaide	39,073	104	95	32	20	...	...	...	1	...	13	10	11	6	...	...
Tasmania.																
Hobart	34,671	105	78	25	4	...	...	1	...	...	8	16	4	5	1	...
Launceston	22,360	68	33	14	1	...	...	...	...	...	2	10	1	1	...	...
Country Districts	98,296	295	83	...	...	...	2	1	...	...	3	...	...	...	...	..
Victoria.																
Melbourne	71,881	114	72	188	31	1	9	8	2	4	91	96	52	36	5	8
Suburbs	417,304	1,157	570													
Western Australia*	59.718	581	215	66	...	...	4	16	6	2	14	35	16	5	...	2

* For the quarter ending 30th September.

◆

METEOROLOGICAL OBSERVATIONS FOR SEPTEMBER, 1893.

Stations.	Thermometer.				Mean Height of Barometer.	Rain.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S.; Long. 138° 36′ E.	...	84·	57·3	40·3	29·814	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S.; Long. 174° 49′ 2″ E.	...	67·	56·3	44·	...	3·57	20	75	...
Brisbane—Lat. 27° 28′ 3″ S.; Long. 153° 16′ 15″ E.	...	84·1	64·9	44·9	30·029	0·83	5	59	W.
Christchurch—Lat. 43° 32′ 16″ S.; Long. 172° 38′ 59″ E.	...	70·2	51·5	33·	...	2·64	11	82	...
Dunedin—Lat. 45° 52′ 11″ S.; Long. 170° 31′ 11″ E.	...	68·	48·1	34·	...	8·17	18	79	...
Hobart—Lat. 42° 53′ 32″ S.; Long. 147° 22′ 20″ E.	...	77·	52·9	37·	29·802	1·62	14	71	..
Launceston—Lat. 41° 30′ S.; Long. 147° 14′ E.	...	68·	53·5	31·	29·841	3·33	16	78	...
Melbourne—Lat. 37° 49′ 54″ S.; Long. 144° 58′ 42″ E.	...	81·8	53·5	33·9	29·777	3·27	18	...	...
Perth—Lat. 31° 57′ 10″ S.; Long. 115° 52′ 20″ E.	...	84.	59.	40.	30.006	5.30	19	72	...
Sydney—Lat. 33° 51′ 41″ S.; Long. 151° 11′ 49″ E.	...	84·	59·4	43·4	29·993	1·60	15	73	N.E.
Wellington—Lat. 41° 16′ 25″ S.; Long. 174° 47′ 25″ E.	...	65·	53·8	36·	...	5·96	23	79	...

AUSTRALASIAN MEDICAL GAZETTE.

ORIGINAL ARTICLES.

RECENT RESEARCH ON CHLOROFORM ANÆSTHESIA.

READ BEFORE THE QUEENSLAND MEDICAL SOCIETY.

By A. Jefferis Turner, M.D. Lond., Brisbane.

There is no question that chloroform is a general protoplasmic poison; that it will first paralyze, and then kill, any tissue to which it is applied in sufficient concentration. But when administered by inhalation, certain parts of the organism show themselves most susceptible, and are first influenced by it. To the fact, indeed, that it first paralyzes the higher nervous centres, and so abolishes consciousness, chloroform owes its usefulness. When the drug is further pushed, certain other nervous and vascular tissues are so affected as ultimately to cause death. It is with the nature and order of these latter changes that we are chiefly concerned to-night.

The revival of the old controversy as to the relative effects of chloroform on the respiration and the heart commenced with the institution of a special research in India at the instance of Surgeon-Major Lawrie. A long series of experiments on dogs were made by Drs. Hehir, Kelly and Chamarette, who constituted the first Hyderabad Commission.[*] Their principal object was to investigate the action of chloroform on the heart, especially noting whether the heart's action ceased before respiration. To this end they made a long series of experiments, in which were recorded the exact time in seconds at which complete anæsthesia, cessation of respiration, cessation of pulse (as felt in the femoral artery), and cessation of heart's action took place. Chloroform was given rapidly or gradually, in slowly-increasing or in large and overwhelming quantity, to animals either fasting or after a meal. In every case it was noted that respiration ceased before the pulse became imperceptible or the heart stopped beating. The following extract from a table given of their second series of experiments is a fair sample of their results.

	Mean.		Maximum.		Minimum.	
	M.	S.	M.	S.	M.	S.
Between stoppage of respiration and pulse ...	0	4·79	6	15	0	5
Between cessation of respiration and stoppage of heart's action ...	3	47·5	13	40	0	45
Between stoppage of pulse and heart ...	3	0·5	13	26	0	13

I will ask you to note in this table first, the great variation in the time during which the pulse could be felt after breathing had stopped—a variation from five seconds to over six minutes; secondly, the similar variation between cessation of breathing and heart's action, 45 seconds to over 13 minutes; thirdly, the long time the heart continued to contract in many cases, after it had ceased to cause any pulse in the femoral artery. To these points we shall recur.

In all their experiments that were pushed to a fatal issue, the Commission found the following succession:—"(1) Partial loss of sensation, with slightly increased reflex irritability, followed by (2) complete loss of sensation and of reflex action; (3) cessation of respiration; (4) absence of pulse of femoral artery; and finally (5) stoppage of heart's action. Although the intervals of time between the occurrence of these events varied within wide limits in different cases, in no instance was the sequence modified. The heart's action never became dangerously affected or stopped until after cessation of respiration."

The second Hyderabad Commission, consisting of Drs. Lawrie, Lauder Brunton, Bomford and Rustomji, associated with the members of the first Commission, made a very large number of experiments confirmatory of those already mentioned. Chloroform was administered some 430 times to dogs and monkeys in a great variety of ways. Some of the animals were fasting, others were at various intervals after a full meal; some had had stimulants—rectified spirits, Liebig's extract, ammonia, &c.—administered to them; in others, morphia, strychnine or atropine had been injected subcutaneously. In some the heart and other organs had been rendered fatty by the previous administration of phosphorous. The movements of the heart were tested either by auscultation, or in the majority of cases, by a needle inserted through the chest wall. In one respect, the Commisssion report, the results are uniform. In every case in which the chloroform was pushed, the respiration stopped before the heart. In the majority of uncomplicated cases the heart ceased to act within two to six minutes after stoppage of the respiration, and in only one case within one minute. The variations in the method of preparation of the animal for the anæsthetic, or in the way of administering it, appeared to have very little influence on the length of the interval. To this statement the Commission point out exceptions. In very slow and prolonged administration; in cases complicated with partial asphyxia; and in one case in which one-third of a grain of atropine was administered before inhalation, the heart stopped very soon after the respiration ceased.

---

[*] *Lancet*, 1890, vol. I, p. 149 *et seq.*

It is important, I think, to note that the pulsations of the heart were extremely feeble in many cases within a few seconds after stoppage of respiration. The femoral artery is a large trunk; yet in 24 experiments no pulse could be fet there within 10 seconds after the animal had ceased breathing, although ineffectual heart contractions continued.

The following instances are selected to illustrate this:—

		Pulse after Respiration.		Heart after Respiration.	
		M.	S.	M.	S.
Dogs	Experiment 281	0	7	5	37
	,, 328	0	7	5	27
Monkeys	,, 375	0	10	7	30
	,, 490	0	7	7	7
Dogs	,, 552	0	6	4	42
	,, 570	0	5	3	40

Heart contractions of an ineffectual—perhaps moribund—character continued in these cases for some minutes; but *effectual* heart contractions ceased almost simultaneously with respiration. Are we justified in attributing this rapid heart failure solely to the influence of chloroform on the respiratory centre?

The Commission made a large number of experiments with recording apparatus, in which the blood pressure and respiratory movements were simultaneously recorded on a revolving cylinder. It is impossible to do more than glance at the most important conclusions of their elaborate report on these experiments.

In addition to confirming their previous conclusions they also found:—

(1) That chloroform, however given, always causes a fall of blood pressure. When given with a proper dilution of air, this fall is gradual, provided that breathing is unimpeded and the animal does not struggle or hold its breath. If the administration is stopped, the fall continues for a short time. This after-fall is probably due to the absorption of the residue of chloroform in the lungs. If chloroform has been very freely given, it may happen that from this cause respiration stops some little time after the inhalation has been discontinued.

(2) When struggling occurs with accelerated respiration and heart's action it leads to a more rapid absorption of chloroform, more rapid fall of blood pressure and greater after-fall.

(3) Any form of asphyxia, or even involuntary holding of the breath, causes a sudden fall of blood pressure, sometimes almost to zero, with great slowing of the heart.

(4) This effect of asphyxia is the result of stimulation of the vagi. It corresponds to the fall of blood pressure and slowing of the heart produced by electrical stimulation of these nerves.

(5) Stimulation of the vagi *per se* is not an element of danger in chloroform anæsthesia. It retards the absorption and conveyance of chloroform to the nerve centres, and hence acts as a safeguard against an overdose. But the effect of vagus stimulation soon wears off, and during the ensuing acceleration of the heart the danger of an overdose is very great. It is the exhaustion of the vagi that is dangerous.

The Hyderabad Commission conclude that an overdose of chloroform always kills by paralyzing the respiratory centres, and never by any direct action on the heart. That to insure safety in administration it is only necessary to watch the respiration and to keep it unimpeded and regular. The usual way in which an accidental overdose is taken is by deep gasping respirations following on reflex holding of breath, or on any cause that induces partial asphyxia. The proper treatment of such an accident is immediate artificial respiration. (They admit, however, that artificial respiration, however promptly performed, is not always successful in restoring animation).

The importance of conclusions founded on such a large basis of experimental evidence must not be under-rated. Dr. Lawrie claims also a clinical series of 45,000 clinical cases of chloroformizations, in which the respiration only was watched, without a single death. It must, I think, be admitted that a frequent danger of chloroform lies in respiratory failure, and we may perhaps add that many recorded deaths have been due to inattention to the state of the breathing. But the extreme conclusion that chloroform, as administered clinically, never causes death through any depressant action on the heart, does not appear to be absolutely proved. With regard to ether the Commission agree with Bernard that its physiological action on respiration and circulation is the same as that of chloroform, the difference being only in degree.

Drs. Wood* and Hare, of Philadelphia, have made numerous experiments on the lethal action of chloroform and ether on dogs, with results which differ in some important points from those of the Hyderabad Commission. I have not been able to consult their original paper, but from an address delivered by the former before the late Berlin Congress their main conclusions may be gathered. They consider that chloroform may produce death by paralysis of the respiratory centre, or by a simultaneous arrest of respiration and circulation, but that primary paralysis of the heart may occur, especially when chloroform vapour has been given in a concentrated form.

---

* *B. M. J.*, 1890, Vol. II, p 384.

They have several times observed the respiration to continue as long as one, and even two minutes after the blood pressure has fallen to zero and the pulse has completely disappeared from the carotid artery. A loss of pulse, however, does not necessarily imply complete arrest of heart's action, as we have just seen. The heart may have continued beating feebly for some minutes longer, though it is doubtful, I think, whether the Hyderabad Commission do not attach too much importance to these last quiverings of a dying organ. The loss of pulse before cessation of breathing is in direct contradiction to the results of the Indian experiments.

The physiological action of chloroform on the heart has been lately carefully studied by Professor McWilliam,* of Aberdeen. For a full account of his method of experimentation I must refer you to the original papers. Suffice it to say that the animal (in most cases a cat) was anæsthetized with chloroform, tracheotomy performed, and regular artificial respiration kept up by a small engine. The thorax was then opened, and by special apparatus continuous tracings of the auricular and ventricular contractions taken on a revolving drum. These tracings showed not only the individual contractions, but also the state of the heart as to dilatation or engorgement with blood from insufficient contraction. An ordinary blood pressure tracing was taken simultaneously. The artificially respired air passed through a bottle into which small quantities of chloroform or ether were injected at intervals. The fall of blood pressure noted by other observers was accompanied by a weakening of the individual heart beats. This weakening might be interpreted as the secondary result of diminished resistance due to vasomotor paralysis, but another result was observed which cannot be so interpreted. When the chloroform was given in sufficient amount to abolish the conjunctival reflex, and very often before that point had been reached, distinct dilatation of the heart in all its four cavities was observed. This dilatation was not due to increased resistance in the pulmonary circulation, for it affected the left side of the heart as well as the right. It was not due to vagus inhibition, for neither section of the vagi, nor the injection of atropine sufficient to paralyze the inhibitory function of these nerves had any influence in preventing its occurrence. Hence it must be attributed to a direct effect on the heart muscle, causing a relaxation of its fibres and a weakening of their contractile power. When the dilatation has become extreme the heart fails to exercise its proper function, and though it continues to contract rhythmically, its action is feeble and entirely ineffective, and its cavities remain gorged with blood. Yet in this condition it would continue to impart rhythmical movements to a needle passed through the chest wall, as in the experiments of the Hyderabad Commission.

When ether was substituted for chloroform Professor McWilliam obtained very different results. A sufficient quantity having been administered to abolish the conjunctival reflex, there was some fall of blood-pressure, but as a rule no cardiac dilatation. At the most there was occasionally a slight and transient dilatation, lasting only a few seconds, never reaching serious proportions, and speedily passing away. Even this was exceptional. On the contrary, ether was sometimes observed to counteract a persistent ventricular depression left by a previous administration of chloroform.

It may naturally be objected that animals subjected to these experiments were in a different condition to intact animals to whom chloroform is being administered by inhalation in the usual way. There is some force in this objection; but some experiments made in the course of this research as to the relative effects of chloroform administered by the usual method and by artificial respiration, as above described, to the same animal, do much to meet it. For these I must refer you to the original paper. But I must remind you of the importance of the observation that chloroform was observed to cause, in some cases, cardiac dilatation *before* loss of the conjunctival reflex.

Professor McWilliam also observed occasionally the slowing of the heart, caused by vagus action during chloroform administration, and prevented by section of the vagi, recorded by the Hyderabad Commission, and like them does not regard this slowing as in itself a cause of danger. He also agrees with them that in animals chloroform death is usually due to paralysis of respiration, for the heart, though dilated, is usually quite competent. But in a few exceptional cases he has observed heart failure before respiration ceased. In these cases the heart had ceased to functionate, showing merely exceedingly feeble and entirely ineffective contractions, while spontaneous respiratory efforts were well marked. He was able to revive these animals by rhythmical manual compression of the heart after opening the chest.

Professor McWilliam is entirely at one with the Hyderabad Commission as to the danger of the sudden occurrence of deep and rapid inspirations during the administration of chloroform, and insists that a percentage of chloroform in the inspired air, which produces safe anæsthesia during ordinary breathing, may lead to fatal collapse if given during exaggerated respiration. Yet, if his experiments may be relied on, this is not the only possible cause of chloroform death. The drug has a depressing effect on the healthy heart, sometimes, though rarely, so great as to endanger life independently of respiratory failure, and more frequently in conjunction with the latter. This coincidence of cardiac, with respiratory failure, explains the occasional failure of artificial respiration to resuscitate the animal. Possibly in certain pathological conditions in the human subject the heart may be more easily depressed to a fatal degree than in healthy animals.

---

* *B. M. J.*, 1890, Vol. II, p. 831 *et seq.*

One very important point has not been investigated, either by McWilliam or the Hyderabad Commission, and that is the cause of the fall of blood pressure, which regularly occurs as an early effect of the administration of chloroform. As far as they refer to this effect they, like their predecessors, attribute it to a direct action of chloroform on the vasomotor centre in the medulla. It is obvious that it must depend on a vasomotor effect or on a weakening of the heart's action, or on both combined.

Drs. Gaskell and Shore,* of the University of Cambridge, appear to have been the first to seek to arrive at the cause of this initial fall of blood pressure by direct experiment. To do this it was necessary to separate as far as possible the action of chloroform on the medulla and heart respectively. As a preliminary experiment chloroform was applied directly to the medulla after opening the fourth ventricle. The breathing gradually became weaker, and ceased within a short time. But while the paralyzing effect on the respiratory centre was very striking, the effect on the blood pressure was not well pronounced; sometimes there was a slight primary fall, followed by a slight rise, in others a rise only, without any preliminary fall. Finally there was a gradual fall, simultaneous with the gradual cessation of respiration. In another series of experiments very small quantities of chloroform were injected by a hypodermic needle into the jugular vein, and carotid, and vetebral artery rerpectively. When a small quantity of chloroform was injected into the jugular vein so as to reach the heart directly, there was always an immediate fall of blood pressure of a transient character without any affection of respiration. As the blood pressure rose again the anæsthesia became more profound, and respiration might become affected. Repeated small injections depressed the blood pressure more and more, and the pulse tracing became less and less visible, until it disappeared altogether. The respirations continued vigorously for a short time, and finally disappeared some time after the pulse beats had been lost. In such a case, the authors remark, it may be said without fear of contradiction that death is due to failure of the heart's action, even although it may be found on opening the chest that the heart is very feebly beating after respiration has stopped.

It is possible, however, to inject chloroform into the jugular vein at such doses and intervals that the blood pressure recovers after each injection, and death finally occurs from paralysis of respiration at a time when the heart is beating vigourously. These experiments suggest that the injection of chloroform into a vein has a direct weakening effect on the heart, but that the heart may recover while passing on some of the chloroform to the medulla, and so paralyzing the respiratory centre. There is nothing to suggest paralysis of the vasomotor centre.

When chloroform in minute doses is injected into the carotid or vetebral artery the effect is very different from what would be expected if an early effect of chloroform were to paralyze the vasomotor centre. Such an injection was found to cause a rise of blood pressure and not a fall, and paralysis of respiration ensued while the blood pressure was still high. We must not forget, however, that these experiments are open to the grave objection of a possible local irritant effect of chloroform on the brain tissues, owing to its being present in greater concentration than would be possible when it is administered by inhalation.

To meet this difficulty Gaskell and Shore performed some cross-circulation experiments which deserve particular attention. The plan adopted was to connect the cerebral ends of one or more of the carotids of one animal—known as the *fed*—to the cardiac ends of one or more carotids of another animal of the same species—known as the *feeder*. One external jugular vein of the fed animal was similarly connected with an external jugular of the feeder. The remaining cerebral arteries and veins of the fed animal were ligatured, so that its cerebral circulation was entirely supplied by the feeder, the circulation of the remainder of its body, including the lungs, being performed by its own heart. The blood pressure of both animals was registered from the femoral arteries. It was found necessary to diminish the clotting tendency of the blood by a previous injection of peptone or leech extract, and to induce narcosis by chloral or morphia. Six cross-circulation experiments were performed—three with two dogs and three with two rabbits. The cross-circulation having been established, and its immediate disturbing effects on blood pressure having fallen off, chloroform was administered either to the feeder or to the fed. The results were uniform. When chloroform was administered by inhalation to the feeder, the blood pressure of the feeder fell in the usual way, while the blood pressure of the fed animal—whose brain was receiving the same chloroform-carrying blood—did not fall, but, on the contrary, underwent a marked rise. On ceasing the inhalation, the blood pressure of the fed fell, while that of the feeder rose. The fed animal lost the conjunctival reflex during the inhalation of chloroform by the feeder. When, on the other hand, chloroform was administered by inhalation to the fed animal, its blood pressure fell, although no chloroform-carrying blood was able to reach its brain. That this was really so was corroborated by the fact that the conjunctival reflex was not abolished.

---

* *B. M. J.*, 1893, Vol. I, p. 105 *et seq.*

The inference from these experiments is clearly that the vasomotor centre is not paralyzed during the early stages of the administration of chloroform, and that the reason of the fall of blood pressure must be sought in the effect of the drug directly on the heart or blood vessels. There is no evidence that chloroform causes direct general vascular dilatation, while there is considerable evidence that it weakens the force of the cardiac contractions. It has been suggested, however, by Dr. Lauder Brunton * that the previous administration of chloral or morphia, especially the former, to the subjects of these cross-circulation experiments may possibly have introduced a fallacy. But for this the cross-circulation experiments devised by the Cambridge observers might almost be deemed conclusive, were it not that they have been repeated by Dr. Lawrie † with, it is claimed, directly opposite results. Lawrie's experimental results have not yet been published in full, and they certainly included some that appear contradictory of his conclusions. He remarks that in some cases he produced fall of blood pressure in the fed animal as the sole effect of chloroform, and in others respiratory failure without fall of pressure. He is inclined to explain this as due to a partial blocking of the circulation in the fed brain, the respiratory and vasomotor centres in the medulla being supposed to draw their blood supply from different sources. In view of the close juxtaposition of these centres, this explanation does not seem to me at all probable. Nevertheless Lawrie publishes two tracings, which appear to show clearly a fall of blood pressure in the fed animal, occurring as an early result of the administration of chloroform by inhalation to the feeder; and a third tracing, in which chloroform, administered to the fed animal, had no effect whatever on its blood pressure. Numerous other control experiments are asserted to prove clearly that chloroform can only act on the organism through the nerve centres.

This direct conflict of experimental evidence will, I hope, before long be decided by further research. Meanwhile for my own part I am inclined for several reasons to give greater weight to the Cambridge experiments. However that may be, Lawrie's conclusions from his experiments appear to be too sweeping. That chloroform has no direct action upon the heart is inconsistent with every previous research, even with that of the Hyderabad Commission. The effect of pure asphyxia on the circulation is very different from that of chloroform poisoning. When an animal is asphyxiated, the heart continues beating vigorously for some time, and there is a rise of blood pressure, owing to stimulation of the vasomotor centre causing general arterial constriction. When respiration is paralyzed by chloroform, blood pressure is exceedingly low and never rises, while the heart-beats rapidly become so weakened as to be altogether ineffectual. This may occur, according to the Hyderabad Commission, within five seconds; and Lauder Brunton * admits that the failure must be attributed to the combined effect of asphyxia and chloroform on the heart muscle.

Let us now sum up the present position of our knowledge of the effects of chloroform upon animals as learnt by experiment:—

(1) Chloroform inhalation pushed far enough paralyzes the respiratory centre in the medulla oblongata. All observers are agreed that this is the most common cause of death in animals to whom chloroform is being given in the ordinary way. It may occur from giving too great a quantity of chloroform to an animal already under its influence; and this happens with great readiness and rapidity if from any cause the respirations become deep and gasping. Gasping respiration may follow voluntary holding of the breath, reflex inhibition from the application of a too-concentrated chloroform vapour, or from other sensory stimuli, or anything that causes temporary asphyxia.

(2) Operative procedures, which are believed to be specially liable to cause nervous shock, have little or no effect upon animals, whether partially or wholly under chloroform. When the anæsthesia is complicated by asphyxia, or in a less degree when the animal holds its breath, inhibition of the heart's action through the vagi, with great fall of blood pressure, takes place. This vagus inhibition is soon exhausted, and is not, in itself, dangerous to life.

(3) Chloroform has a weakening effect upon the heart muscle or ganglia. The heart's action may become altogether ineffectual, so that no

---

* *B. M. J.*, 1893, vol. I, p. 506.

† *Lancet*, 1893, vol. I, p. 289.

* *B. M. J.*, 1893, vol. I, p. 506.

trace of pulse remains, almost simultaneously with the cessation of respiration. According to some observers, this occasionally occurs before cessation of respiration.

(4) An early effect of chloroform inhalation is a well-marked fall of blood pressure. How far this may depend upon vascular dilatation caused by an effect on the vasomotor centre in the medulla, and how far upon a direct weakening of the heart's contractions must be regarded at present as *sub judice.*

In applying the conclusions obtained by experiments on animals to man some caution is necessary. The failure of various procedures to produce shock in animals does not render it improbable that even fatal shock may follow the same procedures in the human subject. There is an immense difference between the nervous system of man and of the lower mammalia; and the readiness with which syncope may be produced in the former has no parallel in the latter. It would be rash also to assert positively that vagus inhibition is entirely without danger in the human subject. Again, if it were certain that chloroform inhalation had no effect on the heart of the dog, this conclusion could not be applied without qualification to all the subjects we meet with on our operating tables, such as, for instance, an old alcoholic with rigid arteries and flabby heart, whose whole vascular system is degenerated, while his nervous structures are so habituated to the narcotic effects of strong drink that an unusual amount of chloroform is needed to carry them beyond the stage of excitement into that of anæsthesia. If, on the other hand, it is established, as I think it is, that chloroform has a distinct weakening effect upon the heart of a healthy animal, we have much reason for dreading a much more powerful and perhaps fatal effect on such a patient as I have mentioned.

I had intended to review the clinical evidence on the action of chloroform, but to do so would not be fair to other speakers. I will only mention that the clinical evidence of the occasional occurrence of primary heart failure in the human subject is, after making all necessary deduction for insufficiency or error of observation, very strong. For further details I must refer you to the report of the *Lancet* Commission, which is at present in the course of publication by Dr. Buxton. In passing on to the practical conclusions with which my paper ends, I will content myself with asking you to believe that they are based as much on clinical evidence, including my own experience, as on the results of physiological research. There is not, I think, any controversy as to the preliminary precautions which should be adopted in giving chloroform. The patient should have an empty stomach, but should not be faint from want of food. A little beef tea given two hours before the operation, and perhaps a small quantity of alcohol, may be of advantage in the case of a very feeble patient. Some deaths have been attributed, partly at least, to fright; and I should be inclined in a very nervous patient to give some alcohol, or perhaps a small injection of morphia, a short time before the operation. The preliminary injection of atropine sometimes recommended has probably no effect in small doses, and recent investigation appears to show that larger doses would increase the danger from the anæsthetic. The patient should be relieved of all tight clothing, and should lie supine. I prefer, when he is "under," to have the head slightly drawn back over the pillow; the extension of the neck often causes the disappearance of inspiratory stertor from the breathing. If stertor is not removed by this, the obstruction to inspiration usually disappears on pressing forward the angle of the jaw. As far as I can remember I have never found it necessary to pull the tongue forward with forceps. If the nature of the operation requires the patient to be in the semi-prone position, very particular care and attention must be given to the breathing. The giving of chloroform in the sitting position to suit the convenience of a dentist is, I hope, a thing of the past. Dr. Buxton records 56 deaths during the administration of chloroform for the extraction of teeth; in most of these cases the patient was sitting in a chair. In the light of these records, to give chloroform in the sitting position must, I think, be regarded as an act of gross ignorance or carelessness.

During the whole of the administration the breathing should be watched with the utmost vigilance. I do not think too much importance can be attached to this; and we owe a great debt to the Hyderabad Commission for emphasizing it. The administrator should be cognizant by ear, eye, or touch of every breath drawn by the patient. The breathing is not to be watched only as giving signs of a possible overdose, though this is important. But it is yet more important to watch the breathing in order to prevent an overdose being taken. The amount of chloroform taken into the system depends less on the amount on the inhaler, or even on its distance from the face, than on the depth of the respirations. Especially when the patient holds his breath, from struggling or any other cause, should the administrator be prepared for the gasping respirations which usually follow the pause. A few breaths of this sort may be followed by sudden collapse; and whether pulse or respiration fails first, death is equally due to insufficient attention to the breathing.

While insisting on this, I see no valid reason why the administrator should not watch the pulse also. The temporal pulse at least is always within his reach, if not the radial. He may also get valuable information as to the state of the circulation by watching the colour of the patient's face and lips. The occurrence of failure in the heart's action before any change in the respiration may be exceptional, but some such cases appear to have been too carefully watched, and recorded to allow us to doubt its possibility.

The amount of chloroform given should be entirely regulated by the state of the patient. The administrator should have his entire attention concentrated on his patient, and not on his drop-bottle. For the same reason I am against the use of all complicated inhalers. In commencing administration, only a few drops of chloroform should be sprinkled on the inhaler. The sudden clapping of a strong dose of chloroform over the face is sure to cause choking and struggling. As soon as the patient gets accustomed to the vapour, push it carefully, always watching the breathing. As soon as the conjunctival reflex is lost, give less chloroform. In children, and especially in infants, the conjunctival reflex alone is not reliable, and its indications must be checked by observing other reflexes. For instance, in circumcizing infants I am accustomed to pinch the area of distribution of the genito-crural nerve on the thigh. If the child kicks, he is not yet "under." I cannot here enter into the interesting question of the precautions the anæsthetist should take during certain special operations, nor can I discuss the relative value of ether as compared to chloroform, though I should like to state my belief that ether ought to be given more frequently, and that in many cases the risk of accidents would be thereby diminished.

We now approach one of the most important practical questions that I would invite you all to face this evening. What should we do in the case of the sudden development of dangerous symptoms or of apparent death during the administration of chloroform? If I answer this question somewhat dogmatically, it is with the object of inviting your criticism.

The first requisite in the treatment of a chloroform accident is promptness of action; and to be prompt our course of action ought to be clearly decided on before the accident occurs. Anything like flurry or uncertainty, or rushing about for electrical apparatus or drugs, may waste the few precious moments during which alone life might be saved. Fortunately the most effectual modes of treatment are purely mechanical, and need no apparatus but the surgeon's hands and ready wits.

(1) Immediately on cessation of breathing, the anæsthetist should perform artificial respiration. My own practice is to pull the patient towards me until his head falls back over the table, and then to use Sylvester's or Howard's method. With the head hanging back, and the neck completely extended, there is no fear of the air passages being blocked by falling back of the tongue and epiglottis. No other remedial measures should be allowed to interfere with artificial respiration. Its value depends on the promptness with which it is performed. The Hyderabad Commission found artificial respiration nearly always successful in dogs if commenced within 30 seconds after the respiration ceased; very seldom successful if commenced between 30 and 60 seconds after; and always unsuccessful if not begun till after 60 seconds.

(2) Immediately on commencement of artificial respiration, the operator, if one is present, should feel for the pulse, either in the radial or femoral artery. The pulse may have failed at about the same time as, or before the respiration. These are the worst cases. Fortunately there appears to be one method of stimulating to action a failing heart which has really some efficacy. You will remember that Professor McWilliam was able to restore the helplessly dilated hearts of some of his cats by rhythmical compression between his fingers and thumb. In the human subject intermittent compression of the præcordial region has been apparently successful in restoring the heart in three cases reported by Sinclair,* and in two remarkable cases reported by Maas.† In one of Maas' cases the intermittent compression of the heart and lungs had to be continued for an hour. The case is unfortunately too long to quote at length. If the operator devotes himself to this manœuvre the anæsthetist can continue to keep up artificial respiration. In children there would be little difficulty in this method; in adults with rigid chests it might be useless.

(3) There yet remains a third resource of real value, the inversion of the patient. To do this by lowering the patient's head from the table is a somewhat clumsy method. It would be better for the operator or an assistant to stand on the table and raise the patient by holding up his flexed knees as advised by Kelly.‡ In this position the former methods are not interfered with.

---

* *B. M. J.*, 1892, Vol. II, p. 76.

† *Berliner Klin. Wochenscrift*, March 21, 1892. *Therapeutic Gazette*, August, 1892.

‡ *B. M. J.*, 1892, Vol. II, p. 337.

Another method of inversion practised by Prince* of New York, in a remarkable and successful case, was to hold the patient over his shoulders by the knees; an assistant meanwhile performed artificial respiration by compressing the chest and by direct inflation. Dr. Prince also practised trotting round the room with the patient on his back, and I have no doubt that this was of real value, owing to the rhythmical compression of the heart by the weight of the abdominal viscera. With a patient weighing 15 or 16 stone this method has its drawbacks.

Inversion is not always applicable. Atthill† records a case in which it was probably the direct cause of death. The patient had an enormous ovarian tumour, the breathing became temporarily suspended under chloroform, and by inversion the great pressure on the diaphragm effectually prevented any further respiration, and the patient died. We should therefore avoid inversion when there is great abdominal distension.

I have not much faith in the other methods of treatment that have been advocated and practised. Forcibly pulling the tongue forward has been proved to have no effect in raising the epiglottis; it has, no doubt, a strong reflex effect in stimulating breathing, but in profound narcosis of the respiratory centre will probably fail us. In some instances tracheotomy has been performed. Although this is, of course, necessary where vomited matter has got into the trachea and causes asphyxia, it ought not, I think, to be necessary in other cases, provided the head is drawn well back. Slapping of the chest with the hand or with a wet towel may stimulate the respiratory centre in cases of reflex stoppage of breathing, but is not likely to be of use in a really serious emergency. Attempts have been made to restore respiration by faradism, and this again has no doubt some reflex effect. With skilful application the phrenic nerve may be stimulated so as to cause intermittent contractions of the diaphragm, but this is not natural breathing. Faradism of the phrenic nerve can only be regarded as a cumbrous and very uncertain method of performing artificial respiration.

Various drugs have been recommended for use hypodermically. Digitalis is recommended by Wood as a cardiac, and strychnine as a respiratory stimulant. The hypodermic use of ether or alcohol is condemned by him as they are in themselves narcotics and tend to paralyze the respiratory centre. Professor McWilliam's experiments lend a certain amount of support to the use of ether as a cardiac stimulant. But though possibly of some use as adjuvants, it must be remembered that all drugs are useless when the circulation is at a standstill. The value of the use of nitrite of amyl appears to me to be very doubtful. The pallor of the face sometimes observed in chloroform accidents is no doubt due to cardiac weakness, and not to vasomotor constriction. It is difficult to see what advantage can be gained by the use of a powerful vasomotor dilator at a time when the blood pressure has fallen nearly to zero. It has been sought to stimulate the heart to renewed action by acupuncture and by faradism. The former has, I believe, never been tried until after the patient was already dead, and is not likely to be used earlier. In the latter I should have little faith; unless some third person is at hand to superintend the battery I should think it better to persevere in the mechanical methods of treatment already described. Other procedures are apt to endanger life by wasting precious time.

---

* *Lancet*, 1892, Vol. II, p. 949.

† *B. M. J.*, 1892, Vol. I, p. 110.

TWO CASES OF MYELITIS.

By T. B. Whitton, M.D., of Reefton, New Zealand.

◆

I.—Case of Sub-acute Dorsal Myelitis from Cold and Exposure—Recovery.

A. V., aged 53, after being on the spree for a few weeks, attempted to go home, but lost himself in the bush, where he lay for two days and nights in a semi-drunken state. Found by some men, who could not get him to walk or even sit up; he was conveyed to hospital on January 13, when he presented the following condition: He is unable to sit up or turn over on his side; he complains of no pain; no spinal tenderness; he can draw his legs up slightly, when they flop over and slide down again; there is also some loss of sensation in the lower extremities; the knee-jerk is lost and was absent for 12 days, when it returned; the plantar reflex is present but diminished; both the upper extremities are normal as regards motion and sensation; there is a certain amount of mental confusion; being very drowsy it requires one to speak to him in a loud and authorative tone of voice; he answers any questions correctly; recognizes those around him; he will not take any food, but he is given milk and soda water. Retention of urine is present, requiring the use of the catheter; it is dark brown in colour, loaded with lithates, but no albumen. The temperature on two occasions only reached 100; it became normal on the sixth day of illness; the pulse never was above 80 per minute. Alcoholic gastritis is also another trouble to contend with. He was restricted to milk diet for the first five days, then beef tea and brandy for another five days. On admission he was at once given 10grs. of calomel, which having acted, he was put on belladonna.

℞ Spts. Ammon. Co. ʒi.
Tinct- Belladonnæ ʒss.
Aq. Mentha pip. ✓℥vi.
Cap. ʒss. tertüs horis.

A succession of mustard poultices were applied along the spine for three days; the catheter was used twice a day for four days, when he was able to pass his water himself; 15 minims of tinct. of cantharides were added to the belladonna mixture and continued for five days, and then ceased as the bladder gave no more trouble. Sensation fully returned to the legs on the third day; on the fourth he could sit up in bed; he stood up on his feet on the sixth. When the motor power returned I commenced injecting ♏10 of liq. strychniæ along the spine each day, and continued doing so until he left, for when he began to walk there was a paresis of his lower limbs, which were dragged along the ground; it was not the toes, but the heels which dragged. This totally disappeared when the knee-jerk returned.

On the 11th day he was able to walk about as well as ever, his appetite had returned, the bladder was normal, and he was discharged after being 22 days in hospital.

II.—Acute Upper Dorsal Myelitis Following Spinal Hæmorrhage—Traumatic—Death from Cystitis and Exhaustion.

Mrs. P., aged 40, was an inside passenger in a coach which rolled over 100 feet down the side of a river. When she was rescued it was found that she had complete motor and sensory paralysis of the lower extremities, retention of urine, and a fracture of the left tibia two inches below the knee joint. The spinal column was not fractured nor dislocated, but there was extensive bruising over the upper dorsal and cervical regions of the spine. The upper extremities were normal, and the mental powers unimpaired. Total anæsthesia extended up as far as the centre of the sternum in front and the base of the scapulæ behind. This zone of hyperæsthesia was most painful, and continued so until death. Relief was obtained by giving her five grains of antipyrin three times daily. She generally had about two hours' relief from the pain after taking the antipyrin. The catheter was used three times daily, but acute cystitis set in on the tenth day. The gluteal slough appeared within the first week, and rapidly increased, extending over both sides of the sacral region. There was also a trophic slough on the mid-outer side of the fractured limb, which was not caused by the splint. The dressing used for these sloughs consisted of wood wool and boric acid frequently changed. The temperature ranged from 101 to 103, the pulse from 120 to 160. The sphincter ani was paralyzed, as well as the sphincter vesicæ. All the reflexes, superficial and deep, were abolished. The girdle pain was continuous, except after taking the antipyrin.

On the eighteenth day she had an acute attack of pain in the left brachial plexus, with numbness and partial loss of power in the left arm. This was accompanied by dysphagia; was relieved by 15 grain doses of antipyrin, and disappeared after two days. The stomach was always able to retain food, which was taken in liquid form with stimulants. She was given boric acid for the cystitis, and belladonna with ergot for the myelitis during the first two weeks, but when the end was approaching it was discontinued.

℞ Boric acid ʒii.
Liq. ext. ergotin ʒss.
Tinct. bellad. ʒss.
Muc. trajac. ʒii.
Inf. buchu ✓℥vi.
Cap. ʒss ter die.

Two days before death the pulse was 160, weak and thready; the extremities cold; semi-conscious; and slight vomiting, when she quietly passed away. A *post-mortem* was unattainable.

A CASE OF TRAUMATIC TETANUS IN AN ABORIGINAL—RECOVERY.

By James McNish, M.B., L.R.C.P., etc.,
of Burketown, North Queensland.

◆

On the 11th of April last, at 10 a.m., "Ebony," a remarkably intelligent aboriginal of about 14 years of age, was driven to my surgery from a distance of 20 miles, supposed to be suffering from strychnine poisoning. Three days previously (after a 45 miles ride) he was suddenly attacked by cramp-like pains in the stomach, succeeded almost immediately by violent convulsive spasms, accompanied by backward curvature of the body. These spasms were stated to have occurred every three-quarters of an hour if the boy were left at rest, but were induced more frequently by touching him or on any attempt to administer food or drink. The boy had previously been particularly healthy, and no cause could be assigned for his condition except the suppositious one that he had either picked up and eaten a dingo bait (strychnine) or that he had been eating poisonous berries in the bush. The boy, however, denied that he had partaken of either.

On examination the patient was found to be well nourished and of good physique. All the voluntary muscles were found to be in a state of tonic contraction, causing marked rigidity of the trunk and limbs, hardness of the abdomen and muscles of the neck and jaws, and opisthotonos. The mouth could only be opened to the extent of half-an-inch. Great epigastric pain was complained of, also pain in the jaws and the throat, with thirst, but on attempting to drink violent clonic spasms were induced; temperature normal; pulse 80; tongue furred; intellect clear. On searching for a cause that could be assigned for the boy's condition, a small contused wound was found on the right foot over the interphalangeal joint of the great toe, which, on inquiry, the boy stated had been caused by a horse treading upon the part six days previously. The diagnosis was traumatic tetanus.

As the bowels had not been moved for over 24 hours, 10gr. of hydrarg. subchlor. were given, and $\frac{1}{60}$gr. of physostigmine sulphate was injected subcutaneously.

11.35 a.m.—Patient expressed a desire to eat, and with considerable difficulty a few dessert-spoonfuls of bread and milk were taken, each attempt to administer which was attended by clonic spasms of the muscles of the limbs.

12 (noon).—$\frac{1}{60}$gr. physostigmine sulph. injected, and ordered to be repeated every hour.

2 p.m.—Trunk and lower limbs perfectly rigid; capable of moving the arms a little; severe epigastric pain; pulse 100; temperature 101; wooden wedge placed between jaws to prevent further closure; opisthotonos marked; great thirst, but on attempt being made to administer drink, violent clonic spasms, affecting the whole voluntary muscular system, were induced.

During the afternoon the "risus sardonicus" became very marked, and the temperature rose to 104, with profuse perspiration; respiration 24; pulse 120.

At 10.30 p.m. $\frac{1}{3}$gr. muriate of morph. injected hypodermically, which had the effect of, to a slight extent, relieving the epigastric pain and causing the patient to dose; but on the slightest noise or touch violent spasms were induced. At this stage the patient called out loudly to have his body and limbs sponged with cold water, which, on being carried out, caused spasmodic contractions of the muscles.

April 12 (9.30 a.m.)—During the night had profuse perspiration; no sleep, but continually asked to be sponged with cold water. Three attacks of spasms were noted, chiefly on attempts to administer fluid; opisthotonos marked; patient resting solely on head and heels; epigastric pains still very severe; bowels moved involuntarily; considerable thirst, but cannot drink without bringing about the spasms; temperature 104; pulse 126; respiration 24. Forty grains of chloral were administered, and followed in half-an-hour by quiet sleep.

11.30 a.m.—Patient awoke half-an-hour ago in same condition as before.

10.30 p.m.—Has continued the same since last visit, but has taken a few teaspoonfuls of arrowroot and a small quantity of water, each attempt to administer which still brought on the spasms; temperature 104; pulse 130; respiration 24; spasmodic affection of diaphragm evidenced by convulsive difficulty in breathing.

April 13 (12.30 a.m.)—I was called by the attendant, who informed me that the boy was much worse. Found him suffering from apparently excruciating pains about the epigastric region, with shallow spasmodic respirations (26 to the minute), evidently due to implication of the diaphragm; temperature 99·8; pulse 120, small and irregular; injected $\frac{1}{2}$gr. morph. mur., and gave a tablespoonful of brandy. This procedure was followed by some relief, and at 2.30 a.m. sleep supervened, lasting for an hour.

6 a.m.—Condition as regards rigidity remains the same, although patient expresses himself as experiencing much less pain; can take fluid from a teaspoon, but must have a rest between each spoonful. By some means the wedge became displaced from between the teeth, and the jaws are almost entirely closed; ordered to continue the physostigmine.

12.30 (noon).—Violent clonic spasms of the voluntary muscles affecting the flexors more powerfully than the extensors. Opisthotonos still continues; bowels moved involuntarily. 20grs. chloral administered, and physostigmine continued until 11 p.m., when there was a marked increase in the severity of all the symptoms. Still wished cold water bathing, although it brought on the spasms when applied.

14th April (7.15 a.m.)—All spmptoms same as at last note. It was now decided to relinquish the physostigmine, and 15grs. chloral hydrate with 30grs. bromide of potassium were ordered every three hours; half an ounce of brandy with water was also given every four hours. The symptoms continued much the same until April 16, when the rigidity became less, and patient could lie flat on his stretcher. The pulse and temperature were normal and the appetite improved; could now eat and drink without producing the spasms.

On the 18th April the chloral was reduced to 10gr. doses with 15grs. pot. brom. every four hours, carefully watching the effect of the former on the heart.

General improvement took place from this until 27th April, when the rigidity had almost disappeared, and there were no tetanic or clonic spasms; appetite good; patient able to stand alone and walk a few steps without assistance. Improvement continued until 1st May, when he returned home, and a fortnight later was engaged at his usual employment, namely, amongst stock, and is now in as good health as ever.

Remarks.—Traumatic tetanus ending in recovery is always of interest to the profession, hence the publication of the foregoing notes. The case is also interesting as illustrating the comparative results of the treatment by calabar bean and chloral hydrate. For a number of years the former drug or its active principle has been put forth as a physiological remedy for the disease under notice; and Professor Fraser, of Edinburgh, who was the first to suggest the use of this drug, pretty clearly showed that its physiological effects were antagonistic to tetanus, as it paralyses the voluntary muscles and abolishes reflex irritability, and yet experience has shown that it is not to be relied upon. This may be that the drug is not sufficiently pushed, or that the lethal power of tetanus is so great in the majority of cases as not to be influenced by the most powerful remedies.

In the present case one-fiftieth of a grain of physostigmine sulphate was administered every hour for 70 hours without producing the slightest physiological effect. Hence the decision to go back upon the older remedy, chloral, which from published results appears to enjoy as yet about the best reputation in the treatment of this terrible disease; and the effects of the treatment were evident in the general relaxation, diminution of rigidity, and the disappearance of opisthotonos in 48 hours, as is seen by the foregoing report.

In six cases of traumatic tetanus (with three recoveries) I have used calabar bean or its active principle, physostigmine, but with little or no benefit, and have in each case deemed it advisable to fall back upon chloral.

Curare enjoys an eminent place amongst the drugs employed in the complaint under notice, and in all future cases, should it be available, I would consider it worthy of thorough trial. The beneficial effects of morphia in relieving pain should not be overlooked, but it requires a certain amount of discretion in its use, or the respiratory symptoms of the disease may be masked.

ON SOME REVIEWS OF "SNAKE POISON, ITS ACTION AND ITS ANTIDOTE."

By A. Mueller, M.D., Yackandandah, Vic.

◆

That we have entered on a new epoch in our dealings with snake poison by the introduction of the strychnine treatment is hardly questioned any longer in Australia, and also now in a fair way of being acknowledged in India. As this gratifying result is mainly due to the able and consistent support given to me from the first by this journal, it may be appropriate to place on record here a few of the reviews which the little work lately published by me on this subject has called forth, and of which one more especially, namely that contained in the *British Medical Journal* of the 29th July last, deserves special notice.

Human nature remains ever the same. When a man has carried the torch of knowledge successfully into some dark corner, where its light was wanted badly, others who have explored it in vain very frequently endeavour to deprive his labours of any intrinsic value, and to make it appear that his alleged discovery is nothing new and was known long ago, although no one ever dreamt of utilizing it on any large scale for the benefit of mankind.

The *British Medical Journal* takes me severely to task for claiming to have discovered an antidote to snake poison by observations on man alone, and for disparaging the labours of those who experimented on animals, whilst all the time citing Feoktistow's experiments on animals in favour of my theory and treatment. Those who have read my publication will know that I drew a broad line of distinction between purely empirical experiments made in blind search for an antidote and without any definite knowledge of the *modus operandi* of snake poison, and strictly scientific experiments made with the object of ascertaining its action. Of this latter kind were Feoktistow's experiments, the first really scientific ones on a large scale that were ever made with snake poison. I welcomed them as most valuable contributions to science, and as in every way bearing out the correctness of my theory. On the other hand I could not but condemn the empirical ones of Fontana, of the Calcutta Royal Commission, &c., &c., as faulty in method and self-condemned by their complete barrenness of results. How it can be made a reproach to me that I worked out a scientific theory of the action of snake poison by observations on man alone, and was guided by it to the correct antidote, surpasses my humble understanding.

In order to appraise such criticism at its utter hollowness, it is only necessary to show what was known of snake poison in best informed circles previous to my publishing my theory early in 1888, and Feoktistow's publication reaching Australia in the latter part of the same year.

Even as late as March, 1892, Sir J. Fayrer read a paper at a meeting of the Victoria Institute on "Serpent worship, the venomous snakes of India, and the mortality caused by them," in which some old errors of the past were once more brought forward. Although the paper was not a strictly scientific one, being read before an audience of which only a small minority belonged to the medical profession, it may be fairly presumed that Sir Joseph would not have committed himself to any views which he knew to be questionable, yet he gave expression to some that were already fully disproven by Feoktistow. The latter had shown conclusively that snake poison does not destroy protoplasm and the lower forms of invertebrate life, and years before I studied his work I had myself become convinced of this, and explained the immunity of micro-organisms by the absence of nerve tissue in them. Sir Joseph declared that snake poison is as deadly to them as to the vertebrates, and he also reiterated the doctrine of the old school, that whilst the colubrine poison is a nerve poison, the viperine is an irritant and blood poison, causing extensive blood changes. We know now, as an absolute fact, that all snake poison is a nerve poison and acts according to one uniform principle.

Sir Joseph's paper was sent to me for such comments as I could make on it, and I sent in a special communication in which I showed Sir Joseph's views to be untenable, but to which this gentleman still owes me a reply.

Anyone bearing these facts in mind, and reading the review in the *British Medical Journal* between the lines cannot fail to draw certain conclusions. It shows even personal animus by charging me without any reason with being profoundly ignorant of the fact that Rokitansky discovered the action of strychnine by experiments on animals, on the evident but totally erroneous supposition that I am a foolish and fanatical anti-vivisectionist and opposed to all experiments on animals, instead of merely objecting on ordinary humane grounds against animals being uselessly tortured, as they were by the antidote seekers.

Of the strychnine treatment, the *British Medical Journal* condescends to approve as a rational one, but in giving its grounds for approval allows the "cat to slip out of the bag." Rokitansky, it states, has shown strychnine to be a powerful stimulant of the respiratory centre, and *Fayrer* and *Brunton* have made the discovery that snake poison kills by paralyzing the respiration. How ingeniously put, but at the same time how delightfully inaccurate is this learned statement! We all die in the end from want of breath; but it so happens that only the cobra poison, and occasionally that of our tiger snake kill by paralyzing the respiratory centre, but that in the vast majority of deaths from snake poison it is paralysis of the vasomotor centre that causes death.

The concluding sentence of the review lets another cat out of the bag. It reads: "If Dr. Mueller were to assume a more reasoning and less dogmatic attitude towards those who will not accept his views *without his rendering a reason for them*, he would probably find less opposition on their part." In reply to this sage advice Dr. Mueller begs to say that the reasons he has given for his views are convincing to all but a few who do not want to be convinced, and that the opposition of these few, arising from offended vanity, is harmless in the extreme, for the proof of the pudding is in the eating thereof.

A curious problem is presented in Banerjee's eight cases as reported by him to this journal and *The Lancet*, and copied by me from the former, if the analysis of these cases made by Surgeon-Captain J. H. Tull Walsh, in a review of my publication in the *Indian Medical Gazette* for September is correct. It is principally based on the examination of the snakes said to have inflicted the bites, which had been preserved by Banerjee and kindly sent to the reviewer, who declares them all to be either harmless specimens of non-poisonous species, or young and small poisonous ones who could not have inflicted serious injuries. Even the *Daboia* of Case VIII, carefully identified by Banerjee, is alleged to be an harmless *Dipsas trigonata*. Are we to assume then that the cases were all a hoax, and that the symptoms described by Banerjee and the large quantities of strychnine injected by him were all fictitious? The conclusion seems monstrous, and it would be most unfair to adopt it without having heard what he has to say on the subject. In reviewing my publication, Dr. Walsh very naïvely states that the chapter on the action of snake poison is carefully written, and contains almost all that is known on the subject. This is tautology with a vengeance, evidently intended to imply that it contains nothing new. The chapter contains almost all that is known on the subject, because this all is published there, but was evidently not known in 1892 by the greatest living authority on snake poison. The only addition to our knowledge on the subject since the book was published is the article on "Hæmaturia in Snakebite," contributed to this journal some months ago by the writer. One can hardly congratulate Dr. Walsh on this style of criticism.

That Dr. Shortt used strychnine as an antidote in 1868 at Madras, but that it was abandoned through experiments on animals, made by Richards, Francis and Fayrer, is interesting news. According to the *New York Medical Journal* of August, 1893, it was also used by L. Lanszwurt in 1871 as an antidote. This only strengthens the writer's position, who has no desire for originality, but is determined not to rest until strychnine is universally acknowledged and used as an antidote to snake poison.

The world moves slowly, and India in this matter particularly so. The *Indian Medical Record* of September concludes a fair and honest review of my book as follows: "It is very necessary, therefore, for the Government, in the first instance, to cause it to be made known in every district that a treatment which augurs success has been discovered for snakebite. Medical aid will from this be more eagerly sought by the friends and relatives of the victims. At the same time district medical and sanitary officers may be caused to make known the strychnine plan of treatment to all medical men in their districts.

It was promised to me more than 12 months ago by the Secretary of State for the Colonies, in a despatch transmitted through the Governor of Victoria, that all this should be done at once, and I was requested to transmit any suggestions I might wish to make direct to the Indian Government. According to the *Indian Medical Record*, nothing apparently has been done yet, and I am justified to ask whose fault this is? Is the matter once more to be shelved by experiments on animals when the lives of thousands of human beings hang in the balance? How many of these lives might have been saved since 1868 if Dr. Shortt's proposal had not been put down by these wretched experiments, who can say?

I see, from your issue of this month, that Dr. T. L. Bancroft, of Brisbane, is once more fulminating against the strychnine treatment. His latest proposal is to inject water instead of liq. strychnine. "Hypodermic injections of water," he writes, "would in my opinion produce results quite as, if not *more*, brilliant in Australian snakebite *as* strychnine can." He bases this proposal on the fact pointed out by Dr. Creed in 1887, of fear alone at times producing symptoms very similar to those following snake poison. Since we know that snake poison acts as a depressant of motor nerve force, and there can be no doubt that fear has the same effect and may even suspend the discharge of this force altogether, the *rationale* of Dr. Creed's observation is perfectly plain. But Dr. Creed does not contend that all the symptoms are thus produced, nor that a case produced by fear cannot be diagnosed by an experienced practitioner from a genuine one of snakebite. Logic does not appear to be Dr. Bancroft's *forte*.

Yackandandah, Victoria,
November, 1893.

NOTES ON THREE CASES OF SUSPENDED ANIMATION IN THE NEWLY BORN.

By Gerald S. Samuelson, M.D., of Kangaroo Valley, N.S.W.

In December, 1892, I attended Mrs. A. in her first confinement. The presentation was of the head in left occipito-anterior position. The patient was unknown to me till I was called to her. The head had engaged in the pelvic brim, and the cervix was fully dilated. The attendant woman said the patient "had got no further for twelve hours," nor did the head further descend for a period of three hours, during which time I was with her. I delivered with the forceps. The child was a fully-developed male of good proportion, but was apparently dead. The cord was pulsating feebly, but I could distinguish no pulsation of the child's heart. I endeavoured to resuscitate with artificial respiration and swinging, and then with immersion, without avail. I next passed a gum elastic catheter into the trachea, and applied my mouth to the other end. I first inflated the lungs as my fingers elevated the child's arms; after this I compressed the chest with my thumbs, and with my fingers replaced the arms to the child's side, I sucking the while through the catheter. This process I continued for three or four minutes, till I found that my digital manipulations resulted in the passage of air through the catheter, which was indicated by testing the mouth of the catheter with a match, as one does a tracheotomy tube recently inserted. Synchronously with the respiration described, the heart's beat began to be palpable. In five minutes from the passage of the catheter the child was breathing of itself; in another five minutes it was feebly crying. In June of this year I had occasion to lance its gums; it appeared to be a strong, vigorous child of the usual country weight.

In March, 1893, I was called to a primiparous girl of 16 years of age; she was in the hospital of which I was then in charge. The matron, a certificated midwife, assures me that the labor was precipitate, the head being born as I entered the room. The child was small, its heart and the cord were feebly pulsating, but there was no respiration. I cleaned out the throat, immersed and used artificial respiration for five minutes, during which time the heart seemed to be failing. The matron then brought me a catheter, which I used as in the above-quoted case. The first time I inspired through the tube I heard some coarse râles in it, and was rewarded with a taste of some saline fluid; the second attempt was met by movements of the childs' limbs, and before I could make a third there was a smart attempt on behalf of the child to breathe, so I withdrew the catheter, and the child did well. I saw it one month afterwards. The placenta was adherent, and the womb in the condition of hourglass contraction. The mother was seen alive and well two months after.

On 7th November, 1893, I was called to Mrs. B., multipara, a strong, vigorous woman. I found the child in the second dorso-anterior position; the os dilated sufficiently to admit two fingers; the anus and coccyx easily palpable, and the membranes ruptured. I returned next morning, labour having almost ceased during the night. At 4 p.m. on the 8th the os was fully dilated, but the pains were still few and feeble. I now quote from my notes *verbatim:*

"7 p.m.—Breech rapidly descended; left foot born; hooked down right; breech followed; placed cord in right sacro-iliac synchondrosis; head born at 7.20 p.m., breathless and pulseless. Immersion, swinging, artificial and own method useless for fifteen minutes. Introduced catheter; pulse returned feebly in five minutes; respiration definitely established in ten minutes; completed with constant current." The child did exceedingly well.

The apparent death of the first child I ascribe to compression from pelvic contraction, and from the forceps; that of the second to obstruction with amniotic fluid; and that of the third to pressure on the cord. It will be noticed that in the first case the child was pulseless, and that the pulse and respiration reappeared synchronously; in the second case the heart was pulsating; and that in the third case the pulsation returned first. This latter phenomenon I fail to explain, for while the head was yet unborn I felt the cord cease to pulsate.

WANTED by the Smithsonian Institution, Washington City, U.S.A., copy of *The Australasian Medical Gazette* for July, 1893. Offers may be addressed to the publisher of this journal.

MR. BRUCK can now supply all *the medical specialties* of *Dr. Jaeger's Sanitary System Co.*, as specified on the fifth page of this month's *A. M. G. Advertiser.*

PROCEEDINGS OF SOCIETIES.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE 112th meeting of the Branch was held at the Royal Society's Room on Friday, 3rd November, 1893. Present: Dr. Worrall (President), in the chair, Drs. Lloyd, Huxtable, Wm. Chisholm, Fiaschi, Shewen, McKay, Clubbe, O'Neill, Faithfull, MacSwinney, Craig Dixson, Angel Money, Newmarch, Pockley, Abbott, Lyden, Cohen, G. A. Marshall, Thring, A. Jarvie Hood, M. J. Clune, Wood, Neill, Traill, H. E. Garrett, Paton, Lyon, O'Reilly, Scot Skirving, H. A. Wright, F. A. Bennet, Ellis, Langhorne, Arthur, Roth, Quaife, A. Parker, Lennhoff, Coutie, Jas. Dick, Edwards, McDonagh, Fullerton, Trindall, Clay, Jenkins and the Hon. Dr. Creed, M.L.C.; visitors: Drs. Taylor, Leahy and Richards.

The minutes of the previous meeting were read and confirmed.

The PRESIDENT announced that the following gentleman had been elected a member of the Branch:—Dr. Robt. Dick, Randwick.

The HON. DR. CREED, M.L.C., read some notes on a "Case of Removal of Nasal Polypi of many years' growth under Anæsthesia produced by Hypnotic Suggestion," and also read notes by Dr. A. J. Brady on the same case. The patient was present.

REMOVAL OF NASAL POLYPI OF MANY YEARS' GROWTH UNDER ANÆSTHESIA PRODUCED BY HYPNOTIC SUGGESTION.

By A. J. BRADY, L.K.Q.C.P., L.R.C.P., &c.,
AND J. M. CREED, L.R.C.P., M.R.C.S. &c.

THE subject of the interesting paper of my collaborator, Dr. Brady, is the same patient who was present at the meeting of the Branch on May 5 last, when I read notes in reference to his recovery from persistent and severe asthma of long standing. Since that date, notwithstanding he has had to go to his work in all weathers, he has had no return of his former distressing symptoms of dyspnœa, so severe as frequently to threaten suffocation, and which, prior to his treatment by hypnotic suggestion, had been constantly present in greater or less intensity. He has had more than one attack of catarrh, but even when thus troubled he suffered but little from asthma. Formerly walking, especially upstairs, was most distressing to him, and in a short walk he would be compelled to rest frequently. Now he can exert himself without bringing on his formerly easily-provoked spasmodic difficulty of respiration, and says he feels in better health than he has done for years. There has been, however, no special improvement in this particular directly traceable to the removal of the nasal growths. I may mention that from his nose having been blocked for so long a period he had acquired the habit of breathing only through his mouth, and except his attention was specially directed to it, he continued to do so after the removal of the obstacles. Under suggestion when hypnotized he at once commenced to respire through his nose, keeping his mouth closed without conscious effort. This, I have no doubt, will have a permanently beneficial effect in relieving the chronic bronchitis, from which he still more or less suffers, though it has lost its former severity.

Notes by Dr. A. J. Brady.

May 10, 1893.—C. Sadler, aged 52, was brought by Dr. Creed to be treated for nasal polypi, and said that he had not breathed through his nose for 20 years, but that the surgeons whom he had consulted in England had declined to operate, as they thought he was not strong enough. He suffered much from asthma and bronchitis, but since Dr. Creed had treated him by hypnotic suggestion the former had left, and the latter had been much relieved. On examination, both nostrils were found to be packed with polypi, showing plainly at the anterior nares, and by the rhinoscopic mirror were seen to project into the naso-pharynx. The obstruction to nasal breathing was complete, for the smallest quantity of air could not be forced in either direction through the nose. He was very dull of hearing. Dr. Creed hypnotized him, and suggested that he would feel no pain during the operation. He at once went into a deep sleep, and became, like a lay figure, so that in whatever position his head was placed it remained. I proceeded with a sliding snare to remove some of the growths from the right nostril, and succeeded in taking away several. I found, however, that the growths were so dense and associated with such marked hypertrophy of the middle turbinated bones to which they were attached, portions of which would have to be removed, that I determined in future to use an ecraseur snare. The patient on this occasion suffered from some temporary shock after the operation. He, however, quickly recovered on being placed in a horizontal position. This symptom entirely disappeared during subsequent sittings, the hypnosis being apparently equally profound. The thought has occurred to me that the shock on the first occasion might have been the result of auto-suggestion on the part of the patient, as he had been sent to the Cancer Hospital in England with the idea that the disease was malignant, and the operation had been declined by other surgeons, so that he had come to regard it as a very formidable affair. I merely throw this explanation out as a "suggestion."

On the 17th May patient came with a letter from Dr. Creed, who was unable to be present, saying that the patient would, when necessary, go to sleep and awake on my telling him to do so. I found that this was so, hypnotic anæsthesia being complete.

On this and two subsequent occasions, the 23rd and 26th of May, I worked at the right nostril, removing with Jarvis' snare large masses of polypi, some of them containing portions of the middle turbinated bone. The growths and the hypertrophied bone were so tightly wedged in the nostril that I had to gradually tunnel, so to speak, from the front, as there was no room to push the steel wire loop up to the attachment of the growths at once. On being awoke from the hypnosis at the termination of the fourth sitting, he was able to blow through the right nostril. He expressed great satisfaction, and said it was the first time for over 20 years. In two subsequent sittings I still further cleared it.

On June 13, when I came to deal with the left nostril, I found that a ledge of bone projecting from the septum would have to be removed before the growths would be accessible to the snare. This I removed with Bosworth's saw and a chisel and mallet. Ordinarily this is a very painful procedure, but under hypnosis he bore it without flinching or showing any sign of pain. A well-marked improvement had now taken place in the hearing since the right nostril had been opened, although the left was still blocked. Several subsequent sittings were required before the latter was cleared. On one occasion when, on a Wednesday evening, the patient came, I found to my surprise that I could not hypnotize him as usual. Dr. Creed was an amused spectator in the background; he had, it appeared, "turned the patient off" on the previous Sunday. He promptly hypnotized him and suggested that I should again have my old power, so I was enabled to proceed as before. I noticed on several occasions when attempting to examine the naso-pharynx, that the hypnosis had in no way abolished the pharyngeal reflex. This may have been due to the fact that it had not been suggested that it would do so. The presence of this reflex had the advantage of preventing blood entering the air passages. The patient has now both nostrils perfectly clear. They will still require occasional supervision for the removal of any growths that may tend to come again, but as the bony sites from which the old ones originally grew have been removed, only a partial relapse can in any case take place. Specimens (exhibited) give an idea of the size and nature of the growths, perhaps about one-third of those removed are not here shown. Those excised at the first sitting were not preserved, and the patient on several occasions expelled large detached masses after leaving my room.

To sum up the advantages of hypnosis in this case, the patient while in the operating chair was completely passive, his head remaining in whatever position it was placed. He offered no resistance to any manipulations that were required, nor did he suffer the slightest pain. A general anæsthetic would probably have been dangerous, whilst, in addition, the operation could not have been carried out in a similarly cautious manner under general anæsthesia, as with a patient in that condition a good view of the interior of the nose is difficult to obtain, so that the proceedings are necessarily of a much rougher nature; and physiological structures in the nose are liable to be violently torn away in the attempt to remove the pathological ones. From the dense manner in which the growths were packed in the nose, cocaine could not have been conveyed to the sites of their attachment so as to have been in the slightest degree effective in lessening the pain of the operations.

DR. WORRALL continued the discussion on Dr. Thring's paper on puerperal infection.

ANALYSIS OF THIRTEEN CASES OF PUERPERAL SEPTICÆMIA, INCLUDING ONE CASE SUCCESSFULLY TREATED BY ABDOMINAL SECTION.

By RALPH WORRALL, M.D., PRESIDENT OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION, AND HON. ASSISTANT GYNÆCOLOGIST TO THE SYDNEY HOSPITAL.

◆

IN opening the discussion this evening on puerperal septicæmia, I may say at once I agree in the main with the very clear and able sketch of the subject presented by Dr. Thring at our last meeting.

I propose giving as my contribution to the debate an analysis of 13 cases, all of which I have seen in consultation during the last 18 months. This list does not include quite all which have come under my notice during this time; but having, unfortunately, failed to take notes of the others, I omit them altogether. Neither does it include a very large number of cases in which septicæmia followed abortion, which should be placed in a different category for the following reasons:—(*a*) The blood is not charged with effete products, as it is at full time labour; (*b*) the blood vessels and lymphatics are smaller; (*c*) the muscular efforts, shock and exhaustion, are much less, and there is an absence of traumatism.

I shall not weary you with details of the cases, with the exception of one in which abdominal section was successful in saving life; and as this is a mode of treatment at present much discussed, I think it right to give the case fully.

Mrs. F., second confinement, seen on seventh day in consultation. Labour had been rapid; doctor arrived after birth of child, but placenta remained, and was removed with some difficulty by combined expression and traction on cord. Hæmorrhage at the time was moderate, but in two or three hours it became profuse, for which doctor was again sent for. It was controlled by pressure, hot douche and ergot. Eight hours after labour temperature was 100; nine hours after labour severe rigor; 16 hours after labour uterus again douched with carbolic lotion, but, notwithstanding, the temperature was 104 26 hours after labour, and continued high and irregular (from 100 to 104·8, with pulse from 128 to 140, and respiration 40) in spite of several repetitions of the douche, quinine in large doses, and an ice cap. The milk almost entirely ceased. The lochia was highly offensive, and in considerable quantity; vomiting occasionally; marked abdominal distension; much pain and tenderness of abdomen.

Condition on seventh day, when I first saw her: Symptoms as just mentioned, and in addition diarrhœa had set in on this day. Patient said she felt terribly weak, and was in pain all over, especially in abdomen. Expression was good; tongue coated, but not dry; respiration 40; pulse 136, very weak and irregular; temperature 103·8; abdomen much distended, very tender, especially lower abdomen, where was felt a hard, slightly uneven, very tender mass, in which the uterus was merged, reaching to umbilicus, rather more prominent on right.

Per Vaginum.—Removed sutures from a laceration of perineum, extending to anus, which had not united; much fœtor of lochia; uterus absolutely fixed, very tender, and imbedded in exudatation, which filled the pelvic brim, but only slightly depressed vaginal vault; os uteri gaping.

I expressed the opinion that an attempt at localization had been made, and that abdominal section might possibly save her, were it not that her vital powers were so low that putting her on the table to operate would probably extinguish them. In view of this, and in the absence of all near relatives, I did not feel justified in urging operation, and advised alcohol (8oz. per diem), all kinds of concentrated nourishment, with quinine, digitalis and strychnine.

For the next few days there was fœtid diarrhœa and a little pus in the stools. Severe rigors took place on tenth and fifteen days. The general condition continued about the same, the pulse sometimes being running, and death apparently being imminent.

On the twenty-first day I again saw her, and found her emaciated to a degree; pulse 136 and weak; temperature 103 at night, almost normal in morning; rarely any sweating; often chilly feelings; occasional vomiting; taking plenty of nourishment; tongue dry and glazed; milk disappeared; lochia very scanty, still fœtid; os uteri rather patulous; mass in lower abdomen as before; vaginal vault generally hard and tender. The most careful bimanual failed to detect the slightest elasticity or fluctuation, nor could the uterus be defined from the exudation. It was evident death was very near, and when I proposed that we should give her the chance of abdominal section, the friends consented after some deliberation.

At 7 a.m. on the morning of the 22nd day I operated, making a median incision. At a depth of fully two inches I came upon a sac containing stinking pus, and shut off by adhesions from the general cavity of the peritoneum. The sac extended from iliac crest on left to almost that point on right. I made another incision close to left ant. sup. il. spine and inserted a rubber drainage tube into each opening.

The patient bore the operation fairly well, but continued in a very critical state for three days, after which improvement began and steadily continued.

I am unable to account for the origin of the septicæmia in this case, the patient was in a perfect house, quite isolated, in perfect country air, with no zymotic or infectious disease in the neighbourhood. The absence of a period of incubation, the temperature rising eight hours after labour, and a rigor taking place in nine hours, points to infection prior to labor. The difficulty with the placenta, associated with hæmorrhage and the ruptured perineum, no doubt were important factors in determining the subsequent events.

In the 13 cases there were seven deaths: two on the 9th day, one on the 12th, one on the 23rd, one on the 25th, one on the 32nd, one on the 77th.

The conditions most frequently associated with labour were the following:—Six cases were attended by midwives, of whom two died. The perineum was ruptured in six cases. There was difficulty with the placenta in five. Post-partem hæmorrhage occurred in three. The forceps were used in two. Cervix uteri was lacerated in two.

The most frequent symptoms and signs were: Rigors, which occurred in nine cases; vomiting, in eight; fœtor of lochia, in six; pelvic exudation, great in seven, slight in five; abdominal distension, great in three, slight in five; excessive after pains, in two; phlebitis of veins of legs—not phlegmasia—in one case, died of pneumonia on 77th day, after several abscesses had formed in legs; erysipelas, which developed on the 15th day, patient having been feverish from the fourth, in one. In this case the uterus was repeatedly douched, and the recovery took place after six weeks' severe illness. Diarrhœa was very prominent in one—died.

As regards treatment, all had quinine, some digitalis and strychnine. The intra-uterine douche was used in eight cases, of whom six died. In one, which died on the 32nd day, each douching was followed by a severe rigor. Three cases, in all of which there was a distinct history of retained membranes, were curetted; of these two died.

I cannot agree that the finger is the best curette, as maintained by Dr. Thring. All disturbance tends to baulk nature's efforts to limit the infection, and the effort necessary to reach the upper portions of the uterine cavity with the finger must cause very great disturbance indeed, whereas the curette causes scarcely any.

To no other affection does the axiom "prevention is better than cure," more forcibly apply. We should treat all cases as we do those submitted to grave operations, making not alone ourselves, clothing, hands, instruments, aseptic, but also giving the same attention to the field of operation, emptying lower bowel with a large enema, then giving a hot hip bath with use of plenty of soap; making as few vaginal examinations as possible and preceding them by washing the vulva with some antiseptic.

Too much trouble cannot be taken to develop our skill in external palpation. It appears to me that the third stage is often unnecessarily hurried, and that it is wiser to wait patiently, even for an hour, until the placenta can be *easily* expressed, when it comes away covered nicely by the membranes, and not separated from them, as is liable to be the case if force is used. Separation is facilitated by omitting to tie the uterine end of the cord, thus allowing the escape of a little blood, and so tending to cause a difference in the size of the placenta compared to the area of implantation.

When the placenta is delivered and we have secured good uterine contraction, we should search for all abrasions and lacerations, closing the latter by sutures and sealing up the former by the application of iodine or iron. Once the streptococci have invaded the tissues there is no known drug or other means of treatment which can be relied upon to destroy them, we can only endeavour in every possible way to aid the vital powers in resisting and eliminating the enemy. To this end we may give quinine, digitalis and strychnine, with alcohol and all forms of assimilable nourishment.

If there be a clear history, as in the three cases on my list, of retained secundines, we should curette and douche. As regards the latter, my experience coincides with the most recent writers, it interferes with nature's efforts to localize the infection, and may cause paralysis of the uterine walls, which we are so anxious should be well contracted. In two of the cases rigors followed each douching. While I do not for a moment mean to say that because six cases out of eight douched died, this affords proof of the harmfulness of intra-uterine douching, yet I do think the fact, to some extent, goes to show that the procedure is not the panacea it is often considered to be.

The success of the case treated by abdominal section makes one hope that by this operation, if not postponed too long, we may save cases otherwise doomed, especially those in which the infective processes appear localized.

With regard to vaginal douching during or after labour, much difference of opinion exists. My own practice is at present to douche during labour if there be any history of purulent discharge, or previous to any operative procedure, in which latter case I practice also intra-uterine douching immediately after labour. If all goes well I do not use further douching, "leaving well alone"; but if there be fœtor of lochia, and if I can rely upon the nurse, I order vaginal douching with the syphon syringe and strong Condy's lotion (℥ss to each pint), first cleansing the vulva. The external genitals should be cleansed with some antiseptic lotion and absorbent cotton wool every four hours. Salicylic or other antiseptic absorbent wool may be applied to the vulva instead of the ordinary diaper, thus lessening the tendency to decomposition of discharges.

While in attendance on puerperal fever, should we undertake other cases of midwifery? To this question I will only say that I do not hesitate to do so, provided I am able to take the proper precautions. These, I think, should be a general bath, including the hair, complete change of clothing, and special disinfection of the hands. That this care is sufficient to guard us against carrying the infection will, I believe, be proved by gentlemen present, whose work brings them almost daily into contact with the cadaveric poison, and who yet are able to carry on their midwifery in an entirely satisfactory manner.

As regards the vexed question of auto-genetic or hetero-genetic, or as Barnes now terms it, endo or exo genetic origin of the disease. I believe the former, using the term in a strictly limited sense, does occur in a certain small proportion of cases, such as those in which there is a ruptured ovarian cyst, or pyo-salpinx, or sloughing myoma, or ulceration of intestine. While these rare conditions should be borne in mind, the rule should be to regard all cases as having their cause in faulty environment.

It would be interesting to hear from gentlemen present who are engaged in general practice what effect, if any, the present epidemic of measles has had upon their puerperal patients.

Dr. MacSwinney said with regard to the question raised by Dr. Worrall as to the complications of midwifery cases with measles, he (Dr. MacSwinney) had several confinement cases in houses where there were cases of measles, but no trouble ensued. He (Dr. MacSwinney), after 20 years of practice, had never had a case of puerperal fever.

Dr. Arthur said he would like to hear some remarks from the members on the possibility of self-infection. The morning after the last meeting he (Dr. Arthur) had been called to a case of confinement, and had taken more than ordinary precautions with regard to cleansing the hands and clothes, but the case developed puerperal symptoms. Another question is, is a woman who has already had an attack of puerperal fever more likely to have another attack?

Dr. Newmarch said he had had a more painful experience of puerperal fever than most men. With regard to douching, is it justifiable to continue it after a continual rise in temperature? He (Dr. Newmarch) thought that while a medical man was attending a case of puerperal fever he certainly should not undertake midwifery cases. What would the position be in law if the patient died? As to the question of measles, he had had a case where there were four cases of measles, and there were no bad results. One source of infection is, no doubt, the child's umbilicus. This should, without doubt, be seen to by the medical practitioner.

The Hon. Dr. Creed, M.L.C., said during the epidemic of puerperal fever in 1875-6 the mortality was very great. It spread through nearly all the districts. He (Dr. Creed) had used sulphurous acid very largely with good results. Dr. Knaggs had also used this remedy a great deal with good results—so much so that Dr. Knaggs mentioned the subject in a paper he had read. Sulphurous acid is, without doubt, one of the very best antiseptics in almost all troubles.

Mr. Stewart McKay said that he had not been present at the last meeting when the paper under discussion had been read, but that Mr. Thring had been good enough to allow him to read it through since the meeting. He agreed with all that Mr. Thring had said, with the exception of that paragraph which dealt with suppuration, it being maintained that suppuration could not occur if microbes were not present. As regards intra-uterine injections of antiseptics when puerperal septicæmia was present, he would like to call attention to a paper recently read by Tarnier at Paris, in which it was shown that great danger sometimes results from the use of antiseptics in these cases, because, as Tarnier pointed out, that when the accidents that he had personally noticed had occurred the uterus was not relaxed, but contracting energetically on the sound. The speaker said that he believed in intra-uterine injection of hot water in cases of septicæmia, but that the injection should be given by the medical attendant, and not by the nurse. With regard to vaginal examinations in parturients, he thought that the vaginal method had been condemned too forcibly, and that while admitting the many good points in favour of abdominal palpation, he thought that those who had condemned the vaginal method so freely would have done well to consider beforehand if their own fingers, rather than the method, were not to be blamed. He maintained that complications arose through neglecting the vaginal examination, and that when the statistics of two clinics, such as Munich and Leipzig, were compared, that the mortality from infection at Munich, where the vaginal method was much practised, was less than at Leipzig, where the genitalia were not touched.

DR. MCDONAGH said he had been fortunate enough to get a *post-mortem* of a case of puerperal fever at the end of an epidemic which occurred at the Rotunda Hospital; the mortality at the time was very great. Some cases were removed from the hospital, and they appeared to do very much better than the cases left in the hospital. It was his (Dr. McDonagh's) duty to visit those patients who were taken from the hospital, and found them without doubt very much better for being removed. In the cases mentioned large quantities of opium were used. Dr. McLean used carbolic sprays night and day in the wards, and during his stay there there was no recurrence of the fever. With regard to the treatment, there is no doubt a good deal of trouble was caused by too much interference with the vagina.

DR. THRING, in reply, said that after all he thought that the main safeguard was cleanliness. There is no doubt that in Dr. Ellis' case the trouble arose from using the dirty douche. Vaginal douches should not be used unless they are properly cleansed. With regard to Dr. Edwards' question as to whether it was dangerous to use iodoform, he (Dr. Thring) did not think so. He had seen iodoform poisoning, but not in cases of puerperal infection. Many cases can be prevented by cleanliness, that is, surgical cleanliness, not the mere washing of the hands and instruments, but the thoroughly cleansing of the same; and we ought to be clean before labour commences. The question has been raised as to whether a medical man should attend any other midwifery case while attending a case of puerperal infection. He (Dr. Thring) was sure it could be done if the practitioner could make certain of being clean. Dr. Worrall appeared to place the cases of abortion in another category, but he (Dr. Thring) thought they should be treated as one and the same class of cases. A little misunderstanding has arisen as to a remark about the finger nail being used instead of a curette. The finger nail is not as good as a curette, but it is sometimes easy of use. Dr. MacSwinney was to be congratulated on his experience, as it was certainly something to be proud of to have had 20 years' work without a case of puerperal infection. With regard to the question of self-infection, this, of course, might possibly occur; and also it is quite likely that if a patient has had an attack that it might possibly recur. Dr. Worrall mentioned a case of abdominal section, and he (Dr. Thring) was sure that in future this operation will more frequently be done. It is quite reasonable to suppose that epidemics of puerperal infection occur through some climatic influence. There is no question but that bad mistakes will occur if vaginal examinations are given up in favour of palpation.

DR. JENKINS moved—"That the N.S.W. Branch of the British Medical Association is of opinion that it is in the highest degree derogatory to the dignity, and adverse to the interests of the profession, that a medical man should be a party to the appearance of a notice of his life in the public press, or insert any advertisement beyond an announcement of change of address or commencement or resumption of practice."

DR. EDWARDS seconded the resolution.

After a short discussion, in which Drs. Ellis, Traill, Arthur and Sydney Jones took part, **DR. ELLIS** moved the adjournment of the discussion until Friday, 10th November. Carried.

THE adjourned General Meeting of the Branch was held in the Royal Society's Room, Sydney, on Friday, 10th November, 1893. Present: Dr. Worrall, President, in the chair, Drs. F. N. Manning, Angel Money, Pockley, Fiaschi, Roth, Arthur, Sydney Jones, Lyon, G. A. Marshall, Garrett, F. A. Bennet, Ellis, Furnival, Kendall, Huxtable, Jamieson, Quaife, A. Parker, Rennie, Edwards, Hankins, Scot Skirving, Langhorne, Pilkington. Crago, Clubbe, James Dick, Neill, Twynam, Paton, Trindall, Thring, Sawkins, Wood, Thomas Dixson, and Jenkins. Visitors: Drs. Richards, Leahy, and Dowdell.

The minutes of the previous meeting were read and confirmed.

The **PRESIDENT** announced that the business before the meeting was the consideration of Dr. Jenkins' motion: "The New South Wales Branch of British Medical Association is of opinion that it is in the highest degree derogatory to the dignity, and adverse to the interests of the profession, that a medical man should be a party to the appearance of a notice of his life in the public press, or insert any advertisement beyond an announcement of change of address or commencement or resumption of practice."

DR. ELLIS resumed the discussion, and moved as an amendment the omission of all the words after the word "opinion" with a view of inserting the following: "That while agreeing with the principle of non-advertising—(*a*) That it is inexpedient to pass resolutions concerning medico-ethical questions while there is no code to refer to, and no mode of enforcing the resolution when passed. (*b*) That the Council of the British Medical Association having admittedly acted *ultra vires* concerning their own members, the Council having no authority whatsoever for the course they took, the circular which has been issued shall be withdrawn. (*c*) That the Council of the British Medical Association having acted most illegally, irregularly, and discourteously to Dr. McCarthy, who is not even a member of the Society, they shall instruct their Secretary to forward to that gentleman an apology, as in duty bound by all considerations of honorable and gentlemanly conduct towards a professional brother."

DR. ARTHUR seconded the amendment.

DR. GARRETT raised a point of order as to whether the amendment was properly before the meeting.

The **PRESIDENT** ruled that Dr. Ellis' amendment was in order.

A discussion ensued in which Drs. Clubbe, Fiaschi, Arthur, Scot Skirving, Kendall, Edwards, and Worrall took part.

The amendment was negatived.

DR. SCOT SKIRVING moved a futher amendment: "That the whole matter be adjourned *sine die*."

DR. THOMAS DIXSON seconded the amendment, which was negatived.

The **PRESIDENT** then submitted the original motion of the Hon. Secretary, and it was carried—19 votes to 7.

DR. ELLIS gave notice that he would move, at the next meeting of the Branch: "That the whole ethical code of the British Medical Association be brought into operation with this Branch."

SOUTH AUSTRALIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

◆

MONTHLY Meeting, held at the Adelaide Hospital on 30th November, 1893. Present: The President (Dr. B. Poulton), and Drs. Symons, Lendon, Way, Hayward, T. K. Hamilton, Martin, Evans, Clindening, A. A. Hamilton, Bickle, J. A. G. Hamilton, A. E. Wigg, H. H. Wigg, Archer, Powell, C. Magarey, Harbison, Singleton, Lawrence, Seabrook, Todd, Lermitte, Cleland, and the Hon. Sec., Dr. Swift.

DR. BICKLE showed a new bed which could be converted into an operating table.

DR. T. K. HAMILTON showed two patients.

PATHOLOGICAL SPECIMENS.

DR. LENDON exhibited an instance of Spontaneous Cure of Peritoneal Hydatid, found in the pelvis of a woman who died of rupture of a suppurating hydatid of the liver. Also a Parovarian Cyst removed from a lady of fifty, whose uterus was also curetted at the same time for menorrhagia. It was of the size of a lemon; had caused lateral displacement of the enlarged womb, which in turn had flattened the right ovary against the pelvic wall. The ovaries and tubes were also removed.

CLINICAL EXHIBIT.

DR. LENDON showed a case of Bulbar Palsy.

DR. T. K. HAMILTON exhibited—(1) A case of Congenital Otosis treated without operation. The patient objecting to any operative interference, the expedient for raising the drooping lid resorted to by Dr. Turner, of Grimsby, and recorded by him in a recent number of the *British Medical Journal*, was adopted. A small concave crutch of thin wire was attached to the upper rim of the spectacle frame (which contains lenses to correct an error of refraction), and this by pressing back the upper part of the lid above the eyeball, raises the lower border sufficiently to make the eyes look symmetrical and relieves the patient of the constant strain, wrinkling of the brow, etc., which result from the throwing of the occipito-frontalis muscle into action to overcome the defect. The patient expresses great satisfaction for the comfort it has afforded her. (2) A case of Synchysis Scintillans in a women aged 63. The opacities are to be seen in one eye only. They are for the most part small and of a silvery grey lustre, probably tyrosin; vision $= \bar{c} + 3$ D $\frac{6}{6}$ (nearly).

The **SECRETARY** read a letter from Dr. Rogers, tendering his resignation. Dr. Hayward proposed, and Dr. Lendon seconded, "That his resignation be accepted." Carried.

DR. HAYWARD read "Notes of a Case of Facial Carbuncle," followed by a discussion by the President, Drs. Bickle, J. A. G. Hamilton, A. E. Wigg, and A. A. Hamilton. Dr. Hayward replied.

DR. WAY and **DR. ARCHER** read papers on "Inversion of the Uterus," which were discussed by Drs. Hayward, Lendon, Bickle, and Clindening. Dr. Way replied.

DR. LENDON mentioned a case of inversion of the uterus which he saw when House Surgeon at the Bristol Royal Infirmary some twelve years ago. The woman was brought in some few days after the confinement, quite exsanguine, with the inverted uterus lying outside the vulva. A modification of Aveling's repositor having failed to restore it to position, the patient was placed under an anæsthetic, the margins of the cervix seized with vulsellum forceps and the fundus squeezed back with the fingers, as in a case of paraphimosis. She made an uninterrupted recovery.

A CASE OF FACIAL CARBUNCLE.

By W. T. HAYWARD, M.R.C.S., &c., NORTH ADELAIDE.

◆

IN a paper on "Facial Carbuncle" that I recently read at a meeting of this Branch, the discussion on which was adjourned till this evening, I drew attention to the unsatisfactory nature of the treatment usually recommended, and suggested that more vigorous methods should be adopted. Since then it has been my good fortune to be able to put those suggestions to a practical test in a case, the brief notes of which are as follows:—

D. W., aged 25, furnaceman, until a month ago had always enjoyed good health; since then has been feeling out of sorts, and has had some symptoms of dyspepsia. On August 24 he felt inclined to shiver, and noticed that his upper lip was painful and rather swollen. The swelling and pain increased, the latter being so severe as to keep him awake at night. Patient came to my consulting rooms on August 28. He looked pale and haggard, and was evidently suffering severely. On his upper lip, just outside the right ala nasi, there was an inflamed irregular swelling about the size of a shilling in extent, and implicating the whole thickness of the lip. It had a carbuncular appearance, having one or two small pustular openings on its surface. It was extremely painful to the touch, the pain extending throughout the right side of the face.

Chloroform having been administered, I made a crucial incision into the swelling extending throughout its whole extent in both directions; with a Volkmann's spoon I scraped away a considerable quantity of softened necrotic tissue, and afterwards swabbed out the cavity with pure carbolic acid and stuffed it with boric lint. The patient presented himself next day and said that he had not felt any pain since the operation, and that he felt a different man altogether; he had passed a good night and slept well, which he had not done for the two previous ones. The wound was quite closed, the lint having come out of the wound the evening before. There being some redness about the lip, I re-opened the wound, letting out a few drops of pus. There was no further trouble, and in the course of a few days the patient had quite recovered, the resulting scar being hardly noticeable.

I do not for one instant say that this case would have developed into one similar to that I previously recorded, which ended fatally, but I would point out that that patient consulted a medical man at his house with symptoms and signs no more severe than those which existed in the present case. What I wish to submit is, that it is impossible to say whether a given case will recover in the course of a week or two with no severer symptoms than those which accompany a carbuncle in any other part of the body, or whether pyæmic symptoms will develop and the patient die after a longer or shorter time. Such being the case, I suggest that it is rational treatment to attack every case vigorously in its earliest stage, and the above example, I think, supports my contention.

NOTES ON TWO CASES OF INVERSION OF THE UTERUS.

BY E. W. WAY, M.B., SURGEON TO THE DEPARTMENT FOR DISEASES OF WOMEN, ADELAIDE HOSPITAL, ETC.

◆

INVERSION of the womb is an accident of such rare occurrence, and is attended with such urgent danger to life, that I am led to record my limited experience of the affection.

It may be described as a turning inside out of the womb, which may be either completely inverted or only partially, so that a mere depression in the surface of the uterus may be the extent of the lesion. Between the two extremes every degree of inversion may be met with, but the most frequently recorded cases are those in which the fundus is carried bodily through the cervical canal, forming in the vagina a globular or rather pearl-shaped tumour, with the contracted, firm cervix surrounding its narrow part like a thick strong ring. In these cases, therefore, not only does the upper part of the uterus become the lowest, but its internal or mucous surface becomes external, and its outer or peritoneal surface is innermost. It is an accident that is generally confined to the parturient woman, although it may be produced by the presence of a tumour, usually of a fibroid character.

It is usual to divide cases produced by labour into two classes, according to the time they come under our notice. If occurring at the time or shortly after labour, we regard them as *acute*, and when existing after the normal period for the changes connected with involution to be completed, we look upon them as *chronic* cases. The two cases which I shall bring under your notice this evening are examples of each kind.

On July 9, 1884, I delivered Mrs. O., aged 21 years, of her first child. She was a plump, healthy woman, and had always enjoyed good health. The labour was tedious owing to its being an occipito posterior presentation, and the birth of the head caused a perineal rupture close up to the sphincter. Delivery was effected under ether and with the forceps. The anæsthesia was not profound, and the patient was almost conscious when the placenta was spontaneously expelled by a strong pain a few moments afterwards. The continuation of acute pain led me to examine at once, and I found the vagina filled by a globular, bleeding mass which partially protruded through the vagina. It was very sensitive to pressure, and as I saw at once I was dealing with an acute inversion of the uterus, I quickly re-administered the anæsthetic, and sent for the assistance of Dr. Hayward, who lived close by. Before he arrived, however, I had without any difficulty returned the inversion by simple pressure upwards. There was little subsequent hæmorrhage, as the uterus remained contracted. The perineal laceration was stitched up, and the patient made an uneventful, but satisfactory convalescence. In the early part of this year I received a letter from the lady, and learned that she has since had four children, and is in excellent health.

Mrs. R., *æt.* 16, was admitted into the Adelaide hospital on 21st July last, complaining of her "womb being turned inside out." She had been confined nearly 8 weeks previously of her first baby, a large living female child, after a labour of about 9 hours, under the charge of her medical attendant. No instruments were used, and the placenta was removed shortly afterwards, its expulsion being accomplished, I learn from the attendant, by Credes' method. Severe hæmorrhage supervened, and the patient states she remained in a semi-conscious state for three days afterwards but beyond great weakness and prostration she suffered little distress during the next three weeks, when vomiting set in, with severe pelvic pain, especially in the right inguinal region; and these symptoms have continued off and on ever since. A fortnight ago pain in the right leg from groin to ankle came on suddenly, followed by swelling of the limb; and the other leg subsequently went through the same phases, and both are still enlarged and painful. She recently passed into the care of another practitioner, who attempted to return the mass by taxis, but failing, he placed the patient under ether, and in consultation and with the assistance of Dr. Lawrence, of Adelaide, he made a further effort, but again failed. She was accordingly advised to enter the Adelaide Hospital, as serious measures might be necessary to save her life. On admission, she complained of sanguineous discharge, pain in the pelvis, bearing down feelings, smarting in the vagina, and difficult and painful micturition. The patient had obviously lost a considerable amount of blood, as she was markedly anæmic and exceedingly weak. She had a small weak pulse of 105, and her temperature was 101·6. There was a pronounced basic hæmic murmur, and the "bruit de diable" on each side of the neck was marked. There were no pulmonary signs.

The abdomen was flaccid, and showed the usual pigmentary changes and striæ in a marked degree. Great tenderness on pressure existed over the lower part of the abdomen, especially in the hypogastrium. Both legs were swollen, white and tense, particularly the left, and over the left femoral and sphena region a thickening was present. The urine presented a trace of albumen. On removing a vaginal plug it was found to be fœtid.

On the following day, July 22, she was placed under an anæsthetic, the A.C.E. mixture being employed. The perinæum was lacerated, but the sphincter was intact. There was a deep extensive laceration in the posterior vaginal wall, and several smaller lacerations were present in other parts of the vagina, all having an unhealthy, sloughy appearance. The upper half of the vagina was occupied by a rounded, pear-shaped tumour, having a smooth surface, with here and there a sloughy patch, exuding blood at some congested points. The tumour could be traced upwards, and was found to be protruding through the os uteri, which was high up, and therefore not easily within reach of the examining fingers. Its edges, however, could be defined tightly constricting the neck of the tumour. Bimanually, the uterine body could not be felt above, and examination per rectum, bimanually, also failed to discover it in its normal position. The examination was also checked by the use of the sound in the bladder and a finger in the rectum, but this also failed to discover the uterine body above. No depression corresponding with the inverted peritoneal surface could be felt, the fleshiness of the patient interfering with the necessary manipulation. The diagnosis of inversion was therefore confirmed, and an attempt, after thorough disinfection of the parts, to reduce the protrusion was made, but it was unsuccessful. I therefore decided to try continued pressure; and with this object, having plugged the upper part of the vagina surrounding the cervix firmly with iodoform gauze, the whole vagina was filled with plugs of the same material, pressure being applied below by a firm perineal bandage, and counter-pressure above by a pad and firm abdominal bandage. The urine was drawn off every four hours. Two days later, July 24, chloroform was again administered, the plugs re-applied, and little change was noticeable.

On the 26th, under chloroform, the dressings were again changed, and a diminution was apparent in the size of the tumour, and a marked improvement in the condition of the lacerations. All fœtor has disappeared.

On the 29th and 31st the plugging was again removed, and the vagina showed a great improvement in its condition, and there was a marked diminution in the size of the tumour, its circumference being greatly diminished.

I now, on the 31st, applied a repositor, which Mr. Wood, who has charge of the instruments in the Hospital, had kindly made for me. It resembles an ordinary wooden stethescope, but is shorter, and the disc at the end, corresponding with the ear piece, is slightly concave and only an inch and three quarters in diameter. Its edges were bevelled off to avoid direct injury from pressure of a sharp edge. At its distal end two pieces of rubber tubing were passed through a slot to enable continued pressure to be applied from outside when *in situ*. The roof of the vagina, surrounding the cervix and tumour, was again plugged with iodoform gauze, and the cup shaped extremity of the repositor applied to the inverted fundus, the vaginal portion of the instrument being firmly packed to prevent its slipping off the tumour. Fore and aft straps were connected with the rubber tubes and fixed firmly on an abdominal belt, counter pressure being applied as before. Subsequently some pain was complained of, and $\frac{1}{6}$ gr. of morphia was hypodermically administered.

Next day, 1st August, some trouble was experienced in passing the catheter, and some pus was found in the urine. The temperature had risen to 100 for a few hours, but was again normal. The repositor was found to be in good position.

Next day the straps were tightened up, and on the day after, chloroform was again administered for the purpose of changing the gauze, when the vaginal tumour was found to have disappeared, and no longer presenting. The os was soft and dilated, and on introducing the finger, a portion of the posterior part of the fundus, about the size of a walnut, was found projecting into the cavity of the uterus. Bimanually the uterine body was now felt in position. The sound passed four inches. The uterus was found fixed, as it could not be dragged down by traction on the cervix. After careful douching, the cavity of uterus and the vagina were again plugged with gauze, which was changed next day, its inverted portion being decidedly less; and it was changed daily until the 7th inst., when the projection was completely absent, and the uterine cavity markedly smaller. The plug, however, was re-applied to keep the part from again inverting, and also because the temperature was elevated (101·6) on the previous night. The plug a the subsequent progretinued for a few days, and the subsequent progress was satisfactory; all traces of pus in the urine had gone; the œdema of the legs had rapidly disappeared; and by the time of her discharge the uterus was only $2\frac{3}{4}$ in. in length. She left the hospital on the 25th August; two weeks ago I heard that she is now in perfect health.

The first case requires no comment, except to point out that inversion may originate quite spontaneously, and that a medical man is not necessarily to blame for its occurrence. Usually it is assumed that traction on the cord is the direct cause of the accident; but if this were so we should find it of much more frequent occurrence than we do. When we reflect that this is the usual practice of ignorant midwives and nurses, and is even the custom of many qualified medical men, it can be held to operate but little in the production of this dislocation and disarrangement of the uterine walls. There must be some peculiarity or some change in the uterine walls to permit the first depression or sinking in to occur; and although the old view that it originated in a strong tetanic contraction of the uterine body and fundus, which forced these parts through the relaxed cervix, is still held by some authorities, it is now generally believed that the initial lesion is a weakened condition, an atonic or paralysed state, of some part of the wall, usually the placental site, which permits the sinking in of the part, which as it protrudes more and more into the uterine cavity acts like a foreign body, exciting contraction of the other parts of the uterus with its resulting expulsion into the vaginal sac. Fortunately this partial weakening of the uterine wall seldom follows labour, and therefore the accident rarely occurs. It is quite easy to see, however, that any mismanagement of the third stage, whether it be from pressure improperly applied above, or from traction below on the cord, would be likely to aggravate or even start the bulging in of the wall of the womb should any defect be present.

With regard to the second case, I may remark that when it first came under my notice its successful return seemed an improbable event; but remembering the experience of others, in which success had been met with in cases of not a few weeks' standing only, but of many years' duration, I determined to make a genuine attempt to restore the uterus to its proper form and position. The plugging with iodoform gauze during the first few days effectually reduced the mass in size, and enabled the elastic pressure afterwards to have better effect, besides gaining the advantage from the antiseptic action of getting rid of the unhealthy septic conditions present. Not having an Aveling's repositor, which I believe to be the best instrument to employ in similar cases, its sigmoid stem enabling pressure to be continued with better effect in the axis of the pelvis, I improvised the instrument I have shown you this evening; and in this case the deficiency in the perineum enabled the proper direction of the pressure to be applied. All slipping of the cup of the instrument from the fundus was prevented by the careful, accurate, firm packing employed.

One point of interest in this struck me. It is stated that reposition usually occurs in a few hours, from 24 to about 48; in this case it was nearly three days before the return took place, and several days of continuous pressure, imperfect I allow, had preceded this application of the repositor. It is also stated that no inflammatory trouble affects the inverted peritoneal surface, and that the surfaces are therefore never adherent. I am inclined to think in this case some peritoneal adhesions prevented the earlier return of the fundus, and I was confirmed in this belief when I found it impossible to draw down the cervix either before or subsequently, its fixation preventing any such movement. The existence of adhesions will also account for the hollow cavity of the inversion not being discoverable by the most careful examination.

CASE OF ACUTE INVERSION OF THE UTERUS IMMEDIATELY AFTER LABOUR.

By R. K. Archer, M.R.C.S.E., of Exeter, Port Adelaide.

◆

Mrs. G., *æt.* 30, married 10 years, no children, consulted me first for dysmenorrhœa and dyspareunia in 1891. For this trouble she was treated, with the result that in September, 1892, she became pregnant. Labour began on July 4, 1893. On first seeing her on the afternoon of that day, I found she had had a coloured discharge for three days previously, and this, at the time of my visit, was already offensive. She was syringed out and the usual antiseptic precautions during labour were carefully carried out. Labour proceeded slowly, and at 4 a.m., 15 hours from the commencement of labour, ether was given, and the forceps applied and the head delivered. Three coils of the umbilical cord were round the neck of the child, and these were liberated without any special difficulty before the body was born. Delivery was easily completed. There was a very slight rupture of the perinæum. After separating the child, on placing my hand on the patient's abdomen, I was surprised not to find the usual uterine tumour, and on making an examination per vaginam found the uterus was completely inverted, with the placenta attached. There was considerable hæmorrhage. As the patient was coming out of ether I renewed the anæsthetic, peeled off the placenta, and was able to easily return the uterus by grasping the organ with one hand in the vagina, and making counter pressure with the other hand on the abdomen. The cervical portion of the uterus returned first and the fundus last. After reduction, I retained my hand for a time in the uterus until I felt some contractions, and then syringed it out with hot carbolic lotion. There were absolutely no symptoms of shock, and before I left her the patient expressed herself as feeling perfectly comfortable.

Subsequently she passed through an attack of septicæmia, and was unable to pass her urine for three weeks. She was up and about during the fifth week.

I cannot account for the inversion unless by traction on the cord during the delivery of the head, in consequence of its being wound round the neck of the child, or by the little extra stretching when the coils of the cord were liberated.

The causes of the acute inversion of the uterus are obscure; but undoubtedly the most general theory is that it is due to some mismanagement during the third stage of labour, either by traction on the cord or by improper pressure on the fundus. In this case it certainly was not due to either of these causes, for the cord was never touched after the child was separated, and no pressure was made on the uterus because it was not in its proper position when looked for. Inversion of the uterus shortly after labour is certainly of very great rarity, occurring not more than once in 190,000 cases. It is said to be one of the most formidable accidents of parturition, the greater number of cases proving fatal. Reduction is said to be often difficult, and sometimes even impossible.

This case is notable for the ease with which the organ was replaced, and more especially still for the almost absolute absence of any constitutional disturbances.

Had it not been for the septic mischief with which the patient was evidently somehow infected before labour, she would, I believe, have recovered without a bad symptom.

There was no doubt or difficulty about the diagnosis, the absence of the tumour in the abdomen, and the presence of one in the vagina with the soft placenta attached, compelled one, however unwilling, to at once recognize the trouble one had to deal with.

THE third and final contribution by Dr. Ashburton Thompson on "The Report of the Leprosy Commission in India," will appear in our next issue.

MEDICAL SECTION OF THE ROYAL SOCIETY OF NEW SOUTH WALES.

THE last meeting of the year of the Medical Section of the Royal Society was held on Friday evening, October 20, at 8.15 p.m. About 40 members were present, and the chair was taken by the chairman of the section, the Hon. Dr. MacLaurin, M.L.C.

The minutes of previous meeting were read and confirmed.

DR. CRAGO and **DR. MORGAN MARTIN** showed a case of myxœdema in a female patient, and gave a brief history of the case.

DR. F. N. MANNING and **DR. BLAXLAND** exhibited a case of myxœdema at present in Callan Park Asylum.

DR. C. J. MARTIN exhibited a case of sporadic cretinism, in which he, in conjunction with Dr. Rennie, had done thyroid grafting in May, 1893. The patient had been shown three years ago at a meeting of the New South Wales Branch of the British Medical Association, and showed very marked improvement since the operation. Dr. Martin also read notes of the case, and showed photographs and temperature charts.

DR. RENNIE read a paper on "Myxœdema," and the subject was then left for discussion.

DR. F. N. MANNING, Inspector-General of the Insane in New South Wales, stated that he had carefully examined Dr. Martin's patient three years ago, and congratulated Dr. Martin on the very decided improvement in its condition since the introduction of thyroid tissue into its abdomen. He then said, I should like, Mr. Chairman, with your permission to make a few remarks on some points in connection with myxœdema and sporadic cretinism which seem to me of special interest, and first as to the arrest of development in the sporadic cretin. It is not only mental but physical, and perhaps in the main degree mental because first physical. The patients are, and remain if untreated, children of from two to six years of age so far as mental development is concerned. There is little or no perversion of faculty, none of the degraded habits and retrogression to animal instincts seen in some forms of idiocy. They are, whatever their age, children, and interesting children, but teachable only within certain limits, and these limits are speedily reached. After much perseverance I was never able in one case to get the patient to count above four, and in another which I saw lately with Dr. Lendon in Adalaide, though the patient knew, and could repeat in a parrot-like fashion all the letters of the alphabet, she knew nothing of their combination to form words, and did not know the numerals. Then again they are in most cases practically and absolutely sexless. I have seen beings with the outward semblance and urinary organs of the male kept in the wards for women up to 30 and 40 years of age, and Dr. Fletcher Beach, so long in charge of the asylum for idiots at Darenth, told me that he almost invariably kept all his cases together in the wards for females, and had never seen any manifestation of sexual feeling or development. Even the skeleton remains undeveloped. During a recent visit to Adelaide I saw in the university museum a most interesting skeleton, of which I took some mental notes. Dr. Lendon has very kindly since sent me full particulars, but as he will himself soon publish these I will only give you a short summary. The height of the skeleton is 34 inches. The sutures of the skull are ununited, the fontanelles open, and two or three teeth, apparently those of the first dentition. The ilium ischium and pubes are separate bones, and certain parts of them are still cartilaginous, whilst the processes of the scapula, though ossified, are united to the body of the bone by cartilage. The long bones are curiously twisted and bowed, and the function of the epiphyses in them plainly visible. This skeleton is beyond doubt that of a sporadic cretin, and the patient who died in 1892 was then 41 years of age. The University of Sydney has a very interesting specimen, for which it is indebted to Dr. Chisholm Ross of Newcastle; but I am inclined to think it might be made much more interesting by a detailed examination and exposition of the skeleton and of some of the organs than it is in its present form. The facts I have mentioned go to show that in these cases the general metabolism of the body is affected. As Mr. Victor Horsley points out the fact that the nervous system is prominently effected in the cachexia thyroidectomica is no proof that the function of the gland is restricted to the secretion of some substance specially necessary to the integrity and proper functional activity of the central nervous system, but is "only one expression of the general disturbance of metabolism caused by loss of thyroid tissue." And there does not seem to me to be evidence that the general metabolism is secondary to the affection of the nervous system, or is caused by influence exerted through the nervous system. In a number of cases of myxœdema there is very little mental disturbance, though there are marked physical changes and evidences of general metabolic disturbance. In the cases of myxœdema which are seen in hospitals for the insane, there is often a family history of insanity or neurosis, which would tend to a greater prominence and perhaps an earlier devolopment of nervous and mental symptoms. In sporadic cretinism the want of bodily development is usually quite as great as that of mental faculty. I have never seen any classification of these cases of sporadic cretinism, but I think there are two very distinct varieties. In one there is a thick crop of somewhat coarse, dark hair on the scalp, a large mouth, turned up nose, contorted limbs, and the general appearance of the anthropoid ape. The case I published in the Melbourne volume of the Intercolonial Congress Transactions, and the case in the Sydney volume, by Dr. Lockhart Gibson, and Dr. Martin's case shown to us to-night, are of this type, whilst at all events are five of Dr. Stirling's cases in the Melbourne volume of the Transactions. A case now under Dr. Lendon's care, and others I have seen belong to the second type, in which there is a much greater resemblance to ordinary cases of myxœdema. The hair is thin, the scalp tending to become bald, the features are much less coarse, the resemblance to people of ordinary intelligence greater, and the limbs are much less, or not at all, contorted. I do not know what is the essential difference between the two classes of cases, and am only groping after more light and putting forward a theory for the investigation of our younger members when I suggest that in the thick-haired, ape-like variety the thyroid is congenitally absent, and in the other it is present, at birth (small it may be and imperfect), and that the disease is due to retrogression or atrophic changes in this organ in early life—is, in fact, early myxœdema, or rather myxœdema in very early life. Turning for a moment to the treatment of myxœdema and sporadic cretinism, it appears to me extremely important that the thyroid gland or its extract, in whatever therapeutic form it may be selected, should be commenced in very small doses, with pulse and temperature under constant and close observation. I am sure I have seen one case lost by the administration of too large doses, and in the *American Journal of Insanity* for July last, two cases are recorded in which fatal attacks of stenocardia occurred during treatment by thyroid extract, after previous symptoms of great agitation, precordial distress, and dyspnœa. Two other fatal cases during treatment will be found recorded by Dr. Murray in *The British Medical Journal* during 1892. I think all observers are agreed that the effect of treatment by extract of thyroid is only temporary. At all events such is the conclusion arrived at by Dr. Cecil Beadles of the Colney Hatch Asylum, after an examination of 100 published cases treated with thyroid gland, in a paper which you will find in the July and October numbers of the *Journal of Mental Science* for this year. As soon as the treatment is discontinued the patient relapses, so that in a few weeks he drops back into a myxœdemic condition. So long as the drug is in use the improvement continues. On dropping it there is a re-appearance of the disease. This, though most interesting from a physiological, is disappointing from a therapeutic point of view, but it should be a comfort to the practitioner that a small dose at infrequent intervals is all that is needed to maintain the improved condition; and a perpetual patient, if possessed of means, is not altogether an unmixed disadvantage. I am not inclined to advocate very strongly the treatment by thyroid extract of cases which are seen in hospitals for the insane, especially where the patient, as is not infrequently the case, was insane before the myxœdemic symptoms appeared. What good could be expected, for instance, in this case? A patient with a decidedly neurotic history and two insane uncles was admitted to Gladesville Hospital in 1880. She had then had four previous attacks of acute insanity, had been more or less insane for 16 years, and her son, born before her first attack, is now an inmate of Gladesville. After some years of occasional insanity with violence, noise and excitement, symptoms of myxœdema appeared in 1886, with a change in the mental symptoms to quietude, dulness, and the usual obfustication seen in the insanity accompaning myxœdema. Treatment was not likely in this case to be of much service, and might have resulted in a change from placidity and dementia to turbulence and chronic mania. It may be that some such reasons have influenced Dr. Blaxland in not pressing the thyroid treatment in the case which is here for your examination from the hospital at Callan Park this evening, and at all events he has a good case of myxœdema with the resultant mental hebetude to show to students of the Sydney University.

After a few remarks by Dr. Milford and the Chairman, the meeting closed.

The recent additions to the university museum of anatomy and pathology were on view during the evening, and proved a source of much interest to the members.

MEDICAL SOCIETY OF QUEENSLAND.

◆

The 81st general meeting was held on September 12 at the Society's Rooms, William-street, Brisbane, at 8.30 p.m. Present: Drs. Hardie (in the chair), Lilian Cooper, Little, Comyn, Smith, Gibson, P. Bancroft, Booth, Thomson, Taylor, Nicoll, Turner, Wheeler, Ure, Byrne, E. O'Doherty and Wilton Love (Hon. Secretary. Visitors, Drs. Challands and C. J. Pound, F.R.M.S.

The minutes of last meeting were read and confirmed.

The Hon. Secretary detailed the various steps which had been taken to secure a tenancy of the present quarters; also the regulations drawn up at the joint meeting of the United Service Institute and the Royal Geographical Society with the Medical Society's representative.

The President congratulated the members of the Society on the possession of the rooms they now enjoyed, and expressed a hope that the tenure of them would be long and prosperous.

Dr. Taylor enquired as to the relationship existing between the Society and the United Service Institute, and was informed thereon.

Drs. C. H. Essey Lawes, M.B. Sydney, (Childrens' Hospital), and W. N. Robertson, M.B., C.M. Edin. (of Ipswich), were elected members of the Society.

Dr. Thomson introduced Mr. C. J. Pound—a Fellow of the London Microscopic Society—to the members.

Mr. Pound gave a very interesting demonstration of microbes, which was much appreciated by those present. A vote of thanks was accorded to Mr. Pound.

At the invitation of the President, a number of members adjourned to the Johnsonian Club to a fish supper. A very pleasant evening was spent.

The 82nd general meeting was held on October 10, at 8.30 p.m., in the Society's Rooms, William-street. Present: Drs. Hardie (in the chair), Smith, Gibson, Hoggan, Little, Thomson, Turner, Ure, Hill and Wilton Love.

The minutes of last meeting were read and confirmed.

Correspondence to and from the Hon. Secretary United Service Institute, fixing the night of meetings.

Dr. Turner proposed, and Dr. Gibson seconded, "that a sum of not more than £5 be expended in rebinding books for the library."

Dr. Hill explained that he had interviewed the manager of the Queensland National Bank as to the Society's account, and had applied for a release, which was granted in full.

On the motion of Dr. Little, seconded by Dr. Hoggan, the Hon. Secretary was requested to write to the Medical Board to allow the Society to store the volumes of medical journals in their rooms, subject to the approval of the Board.

It was announced that Dr. Comyn had presented the *Gazette Hebdomadaire* to the Society; Dr. Turner, the *British Medical Journal*; Dr. Little, *The Practitioner*; Dr. Hill, *Journal of Therapeutics*; Dr. Love, seven years of the *Edin. Medical Journal.*

Votes of thanks to those donors were unanimously carried.

Dr. Little suggested that some arrangements *re* telephone should be made with the United Service Institute, as such an instrument was very necessary.

A series of Acts regarding Public Health passed in the Colony of Queensland were received by the courtesy of the Colonial Secretary. A vote of thanks was accorded him.

Dr. Smith then read his paper on "Insomnia," which was freely discussed by Drs. Little, Thomson, Gibson, Hardie, and Love.

All the speakers recorded their indebtedness to Dr. Smith for his paper.

The 83rd General Meeting was held in the Society's Rooms on November 14, at 8.30 p.m. Present: Drs. Hardie (in the chair), Paul, Gibson, Turner, Little, Cooper, Hill, Lawes, Hoggan, Wheeler, and Love. The minutes of last meeting were read and confirmed.

The Hon. Librarian intimated that in accordance with the vote passed at last meeting, a number of atlases and books had been re-bound at a cost not exceeding five pounds.

The Hon. Secretary reported that a meeting of the House Committee, viz., Chairman and Hon. Secretary of Committee of the United Service Institute, Hon. Secretary Royal Geographical Society, and Hon. Secretary Medical Society of Queensland, had met on October 18 to discuss the quota of expenditure to be paid by each society. After much discussion it had been decided to recommend that the sum of 5s. per week (£13 per annum) be the contribution of the Medical Society, such sum to include the expenses of gas, cleaning, wear and tear of furniture, and telephone rent.

At the last meeting of Council it was decided to recommend the acceptance of these terms.

On the motion of Dr. Gibson, seconded by Dr. Hill, the sum named was agreed upon as the annual contribution of the Society.

Dr. Hardie proposed for membership, and Dr. Lawes seconded, F. Challands, M.B., Ch.M., Sydney, Eidsvold.

Dr. Booth then introduced the motion standing in his name: "That the Society recommend a fee be paid to medical practitioners for notifying infectious diseases, such fee to be the same as that paid in Great Britain." Seconded by Dr. Little.

On the motion of Dr. Gibson, seconded by Dr. Paul, an amendment was carried, "that the time was not opportune, seeing that the epidemic of measles were nearly over, and that such a recommendation be not made."

Dr. Paul then read his paper on a "Case of Compound Dislocation of the Elbow Joint," and exhibited the patient.

Dr. Paul was congratulated by several speakers on the conservative nature of his treatment of a very severe injury.

Drs. Turner, Little, Gibson, Lawes, Hardie, and Love, discussed the case.

Dr. Hardie then read his "Further Notes on Diphtheria in Brisbane during 1893."

The President announced that a pathological and bacteriological demonstration by microscope and magic lantern would be held on Tuesday 21st inst., under the auspices of the Society, by Mr. C. J. Pound, F.R.M.S., and Dr. Thomson. It was proposed to invite a number of gentlemen interested in science on the occasion.

QUEENSLAND MEDICAL ASSOCIATION.

The usual monthly meeting was held in Brisbane on November 9. Present: Dr. Taylor (in the chair) Drs. Marks, Brockway, Comyn, Jackson, O'Doherty, Thos. L. Bancroft and P. Bancroft.

Drs. McNeely and Wellford were unanimously elected members of the Association.

Dr. Thos. L. Bancroft shewed, under a Zeiss's Apochromatic microscope, a section of a membranous cast of the trachea removed at an operation in a case of diphtheria, in which Löffler's bacillus was present in great numbers; also cover-glass preparations of the sputum in influenza. He also exhibited two large renal calculi passed by an elderly woman; they each weigh nine grains, and are composed of phosphate of lime.

Dr. Marks read notes of a case of "Suppuration in the Lesser Peritoneum."

Dr. Peter Bancroft read notes of a case of "Suppuration in the Lesser Peritoneum, caused by the entrance of bile into that cavity."

Dr. Jackson detailed a similar case, which simulated empyema, and resulted fatally.

Dr. Peter Bancroft read, on behalf of Drs. Thos. Bancroft, Jackson and himself, a short "Note on the Increase of White Corpuscles in Filarial Blood."

SUPPURATION IN LESSER PERITONEUM.

By C. F. Marks, M.D., Brisbane.

◆

Alice Brookes, 25, married, no children, admitted 15th August, 1893, had a miscarriage in April, since which has complained of pain in right side. Previous to this was healthy, though she had had recently four or five miscarriages, all at about the seventh month; was feeling quite well, and had been doing her usual household work until Sunday afternoon, the 13th of August, when she suddenly experienced sharp darting pains through her head from the occipital to the frontal regions. The pain was so severe that she went to bed.

On the following day (14th August) the acute pain was replaced by a dull frontal and occipital ache, with occasional sharp twinges, and she also began to complain of pain in the abdomen, groins and back. The pain appears on this day to have been confined to the lower part of the abdomen. There was no history of any injury.

On the next day (15th August) she was admitted to Ward 8, under Dr. Wm. Kebbell, complaining of frontal headache and of pain in back and right side, also to a less degree in left iliac region. The tongue was covered with a dirty yellow fur, except the edges, which were clean. The temperature was 105·6° F. The bowels were opened by means of simple enema, and were not of any unusual appearance. On a more careful examination it was found that there was greatest tenderness over and across the upper part of the abdomen above the umbilicus. Pain in abdomen, radiating from the umbilicus, was felt while the bowels were opened, which occurred four times on the next day (16th).

16th August.—Morning temperature 101·4°; evening temperature 105·4°. With regard to the temperature it may be said that with occasional irregularities it gradually fell, until on September 4 it was normal. There was generally a difference of 4, 3 or 2 degrees between the morning and evening temperatures. Vomited 6oz. greenish yellow fluid, very offensive, smelling like an infant's fæces.

The above conditions continued without much change until 10th September, the treatment having been chiefly directed against the pain, frequent small quantities of morphia and opium being administered in different ways.

The abdomen swelled up and became very tense, and apparently acutely tender. The bowels continued to be irregularly open. The vomiting continued, but the matter vomited consisted of a greenish fluid with small quantities of undigested milk curds without smell. Then the general swelling of abdomen became reduced, and though the tenderness was still acute, it became less so, and was practically limited to an area across the upper abdomen, and at this region there was a distinct bulging, which appeared to be limited to the region of the transverse colon, and to be bound down in the mid line by the linea alba. There was a particular point of pain and tenderness in the hepatic region. The apex beat was in the fourth interspace and displaced towards the left.

10th September.—Dr. Kebbell advised laparotomy, and the patient was transferred to the laparotomy tent under my care.

11th September.—Under chloroform a two and a half inch incision was made in the mid-line about midway between the ensiform cartilage and the umbilicus, the peritoneum being cut through. A quantity of sweet green fluid pus (43 oz.) was evacuated, with a considerable quantity of flocculent masses like clots of pus, similar to those met with in hydatid empyemas. So far as could be ascertained the abscess cavity seemed to be limited laterally and below by some kind of wall. Posteriorly there was felt some body, like a viscus, probably the pancreas.

The rest of the case was uneventful; she gradually and uninterruptedly recovered, and was discharged on the 25th of October, 1893.

SUPPURATION IN LESSER PERITONEUM.

By P. Bancroft, M.B., Hon. Surgeon Hospital Sick Children, Brisbane.

◆

Mrs. H., *æt.* 64, a spare and wiry woman, was seized with severe pain in the right hypochondriac region early in the morning of September 4. I saw her in the afternoon, when she was in a collapsed and delirious condition. The abdomen was flaccid, and in the region of the head of the pancreas and duodenum a hard tumour was to be felt, suggesting malignant growth. The temperature was 103. Examination of the chest gave a negative result.

The next day the temperature continued high, and she had had several rigors. A deep icteric tinge had developed; breath very offensive. There was tenderness in the region of the tumour, but no abdominal distension; had vomited, but the matter ejected had no special character. Improvement began, and on the 11th (*i.e.*, one week) she was up.

On the 15th, however, I was again summoned, the pain having recurred. On arrival I again found the temperature high, while the pulse was 42. After a hypodermic of morphia, relief soon followed, and the pulse increased while I waited by 20 beats per minute. The temperature continued high for some days. Rigors occurred, and very intense jaundice supervened with occasional vomiting. She complained greatly of a burning in the epigastrium and eructations of gas. The breath was very offensive. The temperature became normal, but swelling and dulness began to be evident in the epigastrium, gradually extending into the left hypochondrium. This was distinctly circumscribed, and had a rounded prominence to the left and above the umbilicus, and had a distinctly fluid character.

Dr. Marks saw her with me in consultation, and we introduced a hypodermic needle into the swelling. A yellowish fluid, very faintly turbid, was drawn off. Under the microscope some pus corpuscles were evident and very numerous bacteria.

On the following day I opened the abdomen to the left and above the umbilicus. The cyst was opened, and its walls stitched to the skin. The moment the cyst was punctured an extremely disagreeable smell was evident, like sulphuretted hydrogen. The first fluid to escape was almost clear, of a pale yellow, but was soon followed by pus of a yellowish colour, becoming thicker. In all some three or four pints of fluid escaped.

The interior of the cyst was then explored by the finger, which passed behind the stomach backwards and upwards to the region of the spleen in the one direction, and to the under surface of the liver, spigelian lobe, in the other. A drainage tube was inserted, and for a fortnight everything went as well as could be wished; there was very little discharge, which had no special character; bowels natural; no jaundice; when again severe pain prostrated the patient, accompanied again by high temperature, vomiting, and followed by intense jaundice. But in two or three days these menacing symptoms had all subsided, only, however, to give place to another attack, accompanied by similar symptoms, and in addition a discharge of pure bile from the incision; jaundice was very intense. This discharge of bile continued for a week, and was at times very great, saturating all the dressings and clothing. It was of a yellowish amber colour, clear, viscid, with faint odour, rapidly becoming green on exposure to the air; the stools during this time were quite white, but not offensive. Bile ceased to flow by this adventitious route now nearly three weeks ago, the stools became gradually natural, and the patient began to get about, though there is still a sinus of about three inches in length leading upwards and backwards to the left of the middle line.

NOTICE.

All Communications intended for the Editors must be addressed "The Editors, Medical Gazette, 13 Castlereagh-street, Sydney."

AUSTRALASIAN

MEDICAL GAZETTE.

SYDNEY, DECEMBER 15, 1893.

EDITORIALS.

THE PLEA OF INSANITY.

It would seem that now-a-days no criminal trial which might lead the perpetrator of the crime to the gallows is complete unless the plea of insanity is put in. Humanly speaking, there is much to be said for this course, as, to say the least, the question having been raised, it leads, as a rule, to an additional investigation, thus giving the accused every chance.

This plea was adduced in the case of the young man, E. H. Glasson, known as the Carcoar murderer; and as there was definite insane heredity on the maternal side, and something in his behaviour besides to give colour to the idea of mental instability, it will be interesting to speculate how far any departure from the normal affected his actions, and to gauge, if possible, his mental condition at and about the time the crime was committed. To this end it would be necessary to recapitulate briefly the facts. The subject is a harrowing one alike to the friends of Glasson and those of his victims. He was a reasonably well-educated man, who at school was equable in temperament, his bearing was quiet and gentlemanly, and he was a favourite among his fellow pupils. There was nothing during this period to indicate that his mentalization was other than normal. He appears to have been a failure as regards business matters, and in due course became involved. He then married, and his downfall would appear to date more particularly from this time. He was excessively, perhaps ridiculously, fond of his wife, and he was in monetary straits; but the knowledge of the latter was either kept from her, or more probably, he misled her as to his ways and means. To hide the real state of his affairs pending getting money somehow, seemed to be his great aim, and fearing the future, and being aware of certain circumstances which he believed would make the Carcoar Branch of the City Bank readily assailable, he determined to try his luck at robbery, in which he was unsuccessful, but which ended in the murder of two people and in the maiming of two others.

Although there was little in the evidence during the trial to point to mental disability, from other sources it was gleaned that Glasson was, about the time the crime was committed, in a state of high nervous tension, due partly, as before said, to dread of the future and partly to the fact of excessive post-connubial sexual excess. In this condition it is not to be altogether wondered at that in his excitement he lost for the time being his mental balance and became a murderer, but except for the consequences, in no sense a criminal, as evidenced by the planning of the whole affair, which was extraordinarily weak and ill-considered. At the trial, too, he objected to the plea of insanity being put forward, urging that he acted under the coercion of others, but apart from his own statement there was nothing whatever to point to this coercion.

It will probably be admitted that the sufferer from mental disease or disorder is not strictly a moral agent; in other words, his actions should not be gauged or estimated by an ordinary standard of right and wrong. He is accordingly not a responsible agent, and differs materially in this respect from the rest of mankind. It may also be laid down as accepted by the majority of psychologists that no matter how much may be said on the other or psychical side, we should find ourselves adrift in a boundless and unfathomable sea of speculation if we seek further than the brain for explanations of the phenomena of thought and madness. That the shortcomings of material, as opposed to psychical philosophy, are many and great is undoubted; but it is impossible in the light of our present knowledge to regard all mental phenomena as other than the result of changes in the brain cells or the resultant of forces acting on or bearing upon the brain cells. If mental health be the calm and sequential performance of cerebral function, mental disease is the throwing out of gear or arrest of that calmness, or the interruption of that sequence.

In the case of Glasson, then, should he have been gauged by an ordinary standard of right and wrong? The answer must be in the affirmative. Nor were there sufficient grounds for supposing that apart from the slight and temporary deviation from mental health before mentioned, and which, it must be remembered, was caused by his own default, he was suffering from any brain disease whatever. There would seem to have been no disability of the faculty of reasoning or of interference with will power. His memory up to, and immediately after the crime was admittedly good. His judgment, as affecting himself and others, showed no impairment; in fact, the whole chain of circumstances were perfectly sequential, and demonstrated the absence of interruption of normal cerebration.

AN AUSTRALASIAN MEDICAL ASSOCIATION.

Federation appears to be the motto at the present period for onward movement. We have political federation, federation amongst the employers, and trades federation; and lastly, we are glad to note that a movement has been set on foot for intercolonial federation to conserve the interests of the medical profession.

At a meeting representative of the provincial and country medical practitioners, held in Melbourne on the 8th November, it was decided to form an "*Australasian Medical Association*," and Dr. Scott, of Ballarat, and Dr. Florance, of Mooroopna, were empowered to draft a constitution for approval by the various branches which may be formed.

One of the main reasons for the formation of such an association, as set forth in the circular, is to establish branches in the country districts, so that practitioners may have opportunities of meeting and discussing medical and ethical subjects at stated intervals in their own districts, and having a constitution on much the same lines as the British Medical Association. It appears to us that the time is now ripe for such an association, conducted on broad lines and with a liberal constitution consistent with upholding the status of the profession; and to such a movement we will most willingly give our hearty support. For some years past an association on similar lines has existed in New Zealand. Should the movement be taken up enthusiastically, district branches can be formed in all the colonies, with a result that will be distinctly beneficial to the profession as a body. At the present time meetings are held in the larger towns only, and these meetings cannot be attended by the large body of medical men practising in the country districts, who are thus isolated from any opportunity of meeting and discussing professional subjects, and in consequence are not stimulated to report cases of interest occurring in their daily practice.

There is room for all, for the proposed association does not encroach on the usefulness of the existing medical societies; and we would take this opportunity of asking all our readers to join in the movement, and thus band together to make the Association what its name suggests, an *Australasian Medical Association.*

OURSELVES AND OUR CONTRIBUTORS.

During the last sixteen months not less than four attempts have been made to start another "intercolonial" medical journal, evidently with the object of supplanting *The Australasian Medical Gazette*, which has now been established for more than twelve years. However, all these attempts have failed, and we can well afford to look with equanimity upon all future endeavours in this direction, as we know from experience that there cannot be found in the whole of Australasia a sufficiently large circle of subscribers and contributors to support two intercolonial journals which the profession can be proud of; moreover, the profession does not want a purely scientific journal, and its needs are fully supplied by *The Australasian Medical Gazette*, the only medical newspaper which informs its readers of all that is going on in the various colonies, which contains not only a very large number of original articles by leading practitioners in all the colonies, but also all items of intercolonial medical news; the reports of the various medical societies and their discussions; the proceedings of all the Australasian Medical Boards; medical appointments, and the mortality and meteorological observations throughout the colonies; reviews of new books; notes and queries; letters to the Editors; as well as editorials on current topics of interest, and a variety of other matter, in fact it is an intercolonial medical newspaper *par excellence*, though, of course, there will always be a few malcontents who cannot have it all their own way, and who, as a matter of form, will pass at every Intercolonial Medical Congress a resolution "That it is desirable to found an Australasian Medical Journal," to enable them to show a *raison d'être* for the appearance of, perhaps, a solitary number of a so-called "intercolonial" medical journal after their hearts' desire.

It must also be borne in mind that the Australasian colonies, in the aggregate, have an area nearly as large as the whole of Europe, with a total population of only about 4,000,000, and that therefore it is not such an easy matter as many seem to imagine to produce a journal which, like *The Australasian Medical Gazette*, is appreciated by readers in every part of this vast continent and neighbouring islands; besides, it is not likely that the constant readers of the *Gazette*, which is to them a welcome and almost indispensable visitor, would throw away a good thing for an unknown quantity and quality, as it cannot be expected of medical men to subscribe to two colonial medical journals. The total number of medical men throughout Australia, Tasmania, New Zealand, and Fiji, does not exceed 2,500, and more than half of them are readers of *The Australasian Medical Gazette*, while included in the other half there are hundreds who never read a medical journal at all, and others who cannot afford to subscribe to one.

Then the fact remains that human nature is the same all the world over; medical men prefer to publish their papers in the journal which, like *The Australasian Medical Gazette*, is known to have a very large circulation, and which is read, not only throughout the colonies, but in every part of the world, instead of sending their contributions to a journal which probably may hardly be known outside a narrow circle of mutual admirers.

This journal is now edited by a committee of gentlemen of high professional standing, and our readers may rest assured that the policy to which *The Australasian Medical Gazette* owes its unprecedented success will be adhered to in the future, and that no expense and labour will be spared to maintain its high standard and to retain the goodwill of our numerous subscribers and contributors, to all of whom we tender our most cordial thanks for the valuable support rendered us in the past.

To show the truly intercolonial character of *The Australasian Medical Gazette*, we append a list of the names and addresses of our contributors of original articles during the year 1893, which, as will be seen, embraces the ablest writers and all the more eminent practitioners throughout these colonies.

NAMES OF CONTRIBUTORS TO VOLUME XII.

January-December, 1893.

Andrews, A., M.R.C.S.E., Albury, N.S.W.
Archer, R. K., M.R.C.S.E., Port Adelaide, S.A.
Arthur, R., M.A., M.D., Ch.M. Ed., Mosman's Bay, Sydney.
Bacot, W. R., M.R.C.S., Townsville, Q.
Bancroft, P., M.B., Ch.M. Syd., Brisbane.
Bancroft, Thos. L., M.B. *et* Ch.M. Ed., Brisbane.
Beeston, J. L., L.R.C.S.I., L.K.Q.C.P. Irel., Newcastle, N.S.W.
Bennet, F. A., M.A., Ch.M., M.D. Aberd., Sydney.
Birch, C. O., L.R.C.P. Lond., Liverpool, N.S.W.
Brady, A. J., L.R.C.S.I., Sydney.
Byrne, W. S., B.A., M.B., Ch.M. Dubl., Brisbane.
Chambers, Thos., F.R.C.P. *et* R.C.S. Ed., M.R.C.S.E., Sydney.
Chisholm, Wm., M.D. Lond., M.R.C.S.E., Sydney.
Clay, W. R., L.R.C.P. Lond., M.R.C.S.E., Arncliff, N.S.W.
Creed, The Hon. J. M., L.R.C.P., M.R.C.S.E., Sydney.
Elsner, F. W., F.R.C.S.I., Sydney.
Garde, H. C., F.R.C.S. Ed., Maryborough, Q.
Gardner, W., M.D. Glas., Melbourne.
Giles, W. A., M.B. *et* Ch.M. Ed., Adelaide.
Graham, James, M.D. *et* Ch.M. Ed., Sydney.
Hamilton, J. A. G., M.B. Dubl., L.R.C.S. Ed., Adelaide.

Hamilton, T. K., M.D. Dubl., F.R.C.S.I., Adelaide.
Hardie, D., M.D. *et* Ch.M. Aberd., Brisbane.
Hare, F. W. E., M.D. Durh., M.R.C.S.E., Charters Towers, Q.
Haynes, E. J. A., L.R.C.P., M.R.C.S., Perth, W.A.
Hayward, W. T., M.R.C.S.E., L.K.Q.C.P. Irel., North Adelaide.
Henry, T. J., L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glas., Warialda, N.S.W.
Hirschfeld, E., M.D., Brisbane.
Hoets, A. K., M.R.C.S.E., Brushgrove, N.S.W.
Hoggan, B. B., L.R.C.P.S. Ed., Brisbane.
Hood, A. Jarvie, M.B. *et* Ch.M. Glas., Sydney.
Hood, J. Jarvie, M.B., Ch.M., D.P.H. Glas., Maclean, N.S.W.
Hozier, C. H. S., F.R.C.S.I., L.K.Q.C.P. Irel., Sydney.
Hunt, C. L. W., M.B. *et* Ch.M. Syd., Warwick, Q.
Jackson, E. S., M.B. *et* Ch.B. Melb., Brisbane.
James, D. P., F.R.C.S. Eng., L.R.C.P. Lond., Wellington, N.Z.
Jamieson, Sydney, B.A., M.B., Ch.M. Ed., L.R.C.P. Lond., M.R.C.S., Sydney.
Kendall, T. M., L.R.C.P.S. Ed., Sydney.
Lawson, G. L. L., M.R.C.P., D.P.H. Ed., M.R.C.S.E.. Gosford, N.S.W.
Lendon, A. A., M.D. Lond., M.R.C.S.E. Adelaide.
Love, W. W. R., M.B. *et* Ch.M. Ed., Brisbane.
MacCarthy, C. W., M.D., F.R.C.S.I., Sydney.
McDonnell, A. J., M.B. *et* Ch.M. Syd., Toowoomba, Q.
Macleod, C. G., M.B. Ed., Adelaide.
McMurray, W., M.D. *et* Ch.M. Qu. Univ. Irel., Sydney.
McNish, James, M.B. *et* Ch.M. Glas., L.R.C.P.S. Ed., Burketown, North Queensland.
Maher, W. O., M.D., Ch.M. Qu. Univ. Irel., M.R.C.S.E., Sydney.
Marks, The Hon. C. F., M.D., M.R.C.S.E., Brisbane.
Marten, R. H., M.B. Cant., L.R.C.P., M.R.C.S., Adelaide.
Marwood, A. W., L.R.C.P. *et* R.C.S. Ed., Geelong, Vic.
Mitchell, J. T., M.D., Ch.M. Aberd., Ballarat.
Money, Angel, M.D., F.R.C.P. Lond., Sydney.
Monsell, F. W., L.R.C.S.I., Crystal Brook, S.A.
Mueller, A., M.D., Yackandandah, Vic.
Nash, J. B., M.D. *et* Ch.M. Ed., M.R.C.S.E., Wallsend, N.S.W.
Neale, A. J., M.D. *et* Ch.M. Ed., New Norfolk, Tas.
Newmarch, B. J., L.R.C.P. Lond., M.R.C.S.E., North Sydney.
Nickson, W. J. R., M.D. *et* Ch.B. Dubl., Newcastle, N.S.W.
Nolan, H. R., M.B. *et* Ch.M. Syd., Toowoomba, Q.
Parry, Ll. D., L.R.C.S. Ed., Murrumburrah, N.S.W.
Pilkington, F. S., M.R.C.S.E., L.R.C.P. Lond., Sydney.
Pinnock, R. D., M.D. *et* Ch.M. Glas., Ballarat, Vic.
Pockley, F. A., M.B. *et* Ch.M. Ed., M.R.C.S., Sydney.
Poulton, B., M.D. *et* Ch.B. Melb., M.R.C.S.E., Adelaide.
Power, J. J., M.B. *et* Ch.M. Dubl., Sydney.
Pratt, E. H. L., M.D. St. And., M.R.C.S.E., Tamworth, N.S.W.
Purser, C., M.B. *et* Ch.M. Syd., Sydney.
Read, George, L.R.C.S.I., Kiama, N.S.W.
Rennie, G. E., M.D. Lond., M.R.C.S.E., Sydney.
Rogers, R. S., M.B. *et* Ch.M. Ed., Adelaide.
Ross, C., M.D., Newcastle, N.S.W.
Roth, W. E., M.R.C.S.E., L.R.C.P. Lond., Young, N.S.W.
Samuelson, G. S., M.B. *et* Ch. Ed., Gundagai, N.S.W.
Sawkins, F. J. T., M.B. *et* Ch.M. Syd., Sydney.
Scott, R., M.B. *et* Ch.M. Glas., Ballarat, Vic.
Seabrook, L. L., M.B. *et* Ch.B. Adel., Adelaide.
Sheaf, C. A. E., M.R.C.P. Ed., F.R.C.S. Ed., Toowoomba, Q.
Shewen, A., M.D. Lond., M.R.C.S.E., Sydney.
Skinner, D., M.B. *et* Ch.M. Aberd., Beechworth, Vic.
Smith, F. G., L.R.C.P. Lond., M.R.C.S.E., Hamilton, N.S.W.
Smyth, T. E., M.D. Trin. Coll. Dubl., Campbelltown, N.S.W.
Steel, J. J., M.B. *et* Ch.B. Melb., L.R.C.P. *et* R.C.S. Ed., Sydney.
Stewart, R., M.D. *et* Ch.B. Melb., Adelaide.
Stokes, E. S., M.B. *et* Ch.M. Syd., Port Macquarie, N.S.W.
Struthers, J., M.D. *et* Ch.M. Aberd., Rylstone, N.S.W.
Symons, M. J., M.D. *et* Ch.M. Ed., Adelaide.
Taylor, W. F., M.D., M.R.C.S.E., Brisbane.
Thompson, J. Ashburton, M.D. Brux., D.P.H. Camb., M.R.C.S.E., L.R.C.P. Lond, Sydney.
Thring, E. T., F.R.C.S.E., L.R.C.P. Lond., Sydney.
Todd, C. E., M.D., L.R.C.P. Lond., M.R.C.S.E., Adelaide.
Turner, A. J., M.D. Lond., M.R.C.S.E., Brisbane.
Ure, J., M.R.C.S.E., Brisbane.
Verco, J. C., M.D., L.R.C.P. Lond., F.R.C.S.E., Adelaide.
Way, E. W., M.B., Adelaide.
Wheeler, J. A., M.B. Lond., M.R.C.S., Brisbane.
Whitton, T. B., M.D. Qu. Univ. Irel., Reefton, N.Z.
Worrall, R., M.D. *et* Ch.M. Qu. Univ. Irel., Sydney.
Zichy-Woinarski, S., M.B., B.S. Melb., F.R.C.S.I., Ballarat, Vic.

THE SLAUGHTER HOUSES OF NEW SOUTH WALES.

A REPORT by the Secretary to the Board of Health of N.S.W. was presented to Parliament on the 1st November last, and has caused some commotion in the ranks of our legislators and others who have held the opinion up till now that our Public Health Acts and sanitary laws were perfect. The Report discloses a most disgraceful state of things, to allow which to continue one hour longer than is absolutely necessary to amend the Acts bearing upon the subject, and which the Crown Solicitor urges the immediate necessity of doing, would be criminal. We are quite sure that with a corps of Medical Officers of Health, such as exists in Victoria, where an admirable and, above all, practicable Health Act has now been in existence for some years, this most filthy and horrifying condition of affairs would never have been allowed to come about in this, in every other way, so well-favoured colony. The Report deals with 418 slaughter houses, and, with a few exceptions, all seem to be conducted with the same policy of *laissez-faire*, and to be in happy ignorance of even the most elementary teachings of cleanliness, of scientific slaughtering, and the care of fresh carcases. Let the following extracts from the Report speak for themselves:

> "With few exceptions a variety of occupations are engaged in on the premises of those holding a license under the Slaughtering Act. In addition to the killing of animals and the preparation of their carcases for

food, boiling-down operations are carried on, piggeries and poultry farms are kept, and the business of a 'knacker,' viz., one who kills horses and cattle (diseased and otherwise) for boiling-down, is a frequent accompaniment to the general trade." . . . .

"It may be well at this point to give a description of the structure and arrangement of the premises as they are generally met with.

"That portion used for the slaughtering may be a house with masonry, sawn or slab wood walls, or perhaps just a roofed-over pen. The floors are variously concrete, cement, stone flags, brick, but chiefly sawn wood or rough wooden slabs, and in some instances the ground surface. The drainage (blood and swillage water) from this killing-house falls usually on to the ground or into a trough immediately outside one end of the building. The other houses for hides, boiling-down coppers, &c., are generally huddled close to the slaughter-house, and often all are under the same roof. Adjoining the killing-house are, of course, the stock pens, and also the pig-yards and styes. In many of the reports furnished by the police it is noticed that large businesses are carried on in some districts without any buildings whatever, as many as 300 animals and over being slaughtered monthly in an open pen without any flooring or drainage.

"A few of these places are kept in fair repair, but the majority are defective, especially as regards the condition of the floors and drainage."

With respect to these two extracts no confirmation from outsiders is needed; anyone acquainted with the bush and bush towns will only too readily admit the correctness of their descriptions of bush butchery and slaughter houses. On being recently shown over a large meat canning and preserving works by the manager, it was remarked by one of the visitors that every part of the carcase seemed to be utilized except the blood; the manager then showed where the crimson flood poured into the river, one of our largest and most beautiful in the colony, polluting it for fifteen miles above a large town, which draws most of its water therefrom. It seemed to the manager the most natural and cleanly method of disposing of that troublesome factor, blood, and may, to the lay eye, be less awful than the following:

"As before remarked, the blood and swillage generally runs on to the ground surface, or into a trough which overflows in the piggery adjoining; and the result is that the pigs are often wallowing in a black foul-smelling slush up to their bellies, and extending for a radius of several yards. In any situation the effect of this arrangement is bad, but where the premises are in a low-lying situation, the result can be more easily imagined than described." . . . . "quantities of uncooked offal are frequently thrown to the pigs, who drag it about and leave it to fester in all sorts of holes and corners. The pigs are oftentimes shut up in the yards, but in several instances I have found them in the slaughter-house, tugging away at the neck of a carcase that was hanging to cool." . . . .

"Hoofs, sheep's paunches, and intestines are carted away into a large paddock, and there tipped out for pigs to feed on; the average number of these animals is from 1,000 to 12,00. These pigs have no care, being left to breed promiscuously, so that it is not surprising to find many die, &c. The paddock is so large that the pigs have ample room, but some prefer to congregate near the slaughter-yards and lie about in the drains, &c."

The Report bristles with similar alarming facts, and the hope expressed therein that immediate legislation will be passed is a very modest one, considering that under the existing Act no one has any power to move in the matter of punishing offenders who keep insanitary premises, or cancelling their licenses, as the Report by the Crown Solicitor upon this question most distinctly points out. In countries with a cool climate, a state of affairs similar to what is described in the following extract from the Report by the Board of Health would be intolerable; what it means for this country, with its tropical summer and periodical heavy rains, can only be understood by those who have passed part of their lives in the bush.

"With very few exceptions slaughtering establishments are in a deplorable condition from faulty arrangement and disrepair, from the many occupations carried on in the same premises, and from the utter disregard of the fact that regular and effective cleansing is necessary. The inner walls of killing-houses are plastered with fat and blood, the accumulation of long periods; the floors are broken and under-run with decomposed and highly offensive soakage; in corners and on the rafters overhead are heads and feet, in many cases in an advanced state of decomposition, and it is no uncommon occurrence for maggots to drop on to you when walking under them; the baulks (spreaders on which carcases hang) are rarely cleansed from the first time they come into use; and the same remark is applicable to the saws, knives, cleavers, and other implements used in the trade, and to the men's clothes, cloths used in dressing, covering carcases in carts, &c. The water used for dressing purposes is often of a very impure nature."

It does not seem difficult to trace the connection between outbreaks of diphtheria and typhoid in far away townships where contagion is difficult to establish from without, and the insanitary state of slaughter houses throughout the colony. An outbreak of scarlet fever was many years ago in London itself shown to be due to the insanitary condition of a slaughter yard.

It is, however, as well to know the worst, so that the remedy may be applied quickly. With several members of the profession in both Houses of Parliament it ought not to take long to draft a bill to wipe out the disgrace of this *exposé*, and perhaps save the meat export trade of New South Wales from extinction.

XI. INTERNATIONAL MEDICAL CONGRESS.—The Eleventh Session of the International Medical Congress, which was postponed on account of the cholera outbreak, will be inaugurated by the King of Italy at Rome on the 29th of March, 1894.

EDITORIALS on the "Anti-opium Craze," "Rickets in Australia," "The N.S.W. Benevolent Asylum Imbroglio," and other current topics of interest will appear in our next issue.

LETTERS TO THE EDITORS.

TRANSACTIONS OF CONGRESS.

(*To the Editors of The Australasian Medical Gazette.*)

DEAR SIRS,—Will you permit me through the medium of your *Gazette* to request any members of the late Congress who may not have received a copy of the "Transactions" to be so kind as to communicate the fact to me with a view to having the omission rectified.

Faithfully yours,
L. RALSTON HUXTABLE,
Editor of the "Transactions."

36 College-street,
Sydney, November 24.

CASE OF SNAKEBITE TREATED WITH STRYCHNINE.

(*To the Editors of The Australasian Medical Gazette.*)

DEAR SIRS,—I send you an account of a case of snakebite which occurred here on the 17th inst., and in which I effected a cure with Dr. Mueller's strychnine treatment. A black boy belonging to the place trod on a brown snake, and received a severe bite on the big toe of his left foot. Without loss of time he came to me. I immediately tied a cord tightly round the ankle, cut off the piece of flesh pinched up by the bite (which showed two spots of blood), and injected $\frac{1}{10}$gr. strychnine a little above the bite. Twenty minutes after the bite the boy seemed to have some difficulty in breathing and to feel faint, and so I gave another injection of $\frac{1}{16}$gr. strychnine, removing the ligature soon after. In a short time he appeared to be easier. One hour from the last injection the muscles of his face twitched three or four times, and his arms gave spasmodic jumps. I watched him during the night in case the snake poison should again reassert itself. He slept fairly, and was quite well next day.

I remain,
Yours sincerely,
A. J. MITCHELL.

Pitteroo Station, Thargomindah,
Queensland, October 20, 1893.

THE following telegram appeared in the *Sydney Daily Telegraph* of Saturday, November 4:—

"Lithgow, Friday.—A case of snakebite occurred at Wallerawang on Wednesday. A man, named Jones, was poking a hare out of a hollow log when he was bitten on the hand by a black snake. He applied a ligature and scarified the wound. He was subsequently treated with a hypodermic injection of strychnine, and his recovery followed."

THE following telegram from Lawson appeared in the *S. M. Herald* of Friday, November 10:—"The strychnine cure, administered by Mr. Moore this week to Mrs. Watt, of Hazlebrook, who was bitten by a snake, proved eminently successful."

GRADUATE in quiet village will give assistance to a student reading for final examination for a fortnight in return for assistance in practical histology. Board, &c., provided. Practice in healthy and beautifully-situated locality. Apply at office of this paper.

REVIEWS.

NOTES ON SOME OF THE MORE COMMON DISEASES IN QUEENSLAND IN RELATION TO ATMOSPHERIC CONDITIONS. By David Hardie, M.D., Brisbane: James C. Beal, Government Printer, 1893.

THIS is a little book, but it contains a great deal. It is the first example, to our knowledge, in the history of Australian medicine, of a systematic effort to establish on inductive principles the causal connection between atmospheric states and the manifestations of disease. The author takes as the basis of his tractate the unquestionable, but often overlooked fact, that it is in the atmosphere that we live and move and have our being, and that disease is brought about or influenced by varying meteorological conditions. Dr. Hardie, with great labour and patience during five years, has collected the facts furnished by the tables of mortality in six districts of Queensland, together with the meteorological reports of the justly celebrated meterologist of that colony, and with characteristic caution has drawn therefrom a number of inferences which we regard as excellent colligation of facts, almost falling within the category of valid and valuable inductions. For example, with regard to whooping cough, the author establishes the following law, that the association of a high mortality with a medium temperature for all seasons of the year in combination with moderate rainfall and high relative humidity supports the assumption of a germ origin for that malady.

This work is a splendid example of the application of inductive philosophy to the ascertainment of the etiology of the more common diseases which prevail in the northern colony, and ought to stimulate other searchers after truth to rest no longer satisfied with mere *a priori* assumptions, but to endeavour to obtain opportunities and assistance for investigation, such as have been so generously given by the Government of Queensland.

We congratulate Dr. Hardie on the liberality of his Colonial Secretary, and consider the work he has produced, doubtless of a tentative character, as worthy of the highest praise and warmest encouragement. There are several very carefully drawn up maps in a separate appendix illustrative of the work.

NAPHEY'S MODERN THERAPEUTICS. By Allen J. Smith, M.D., and J. Aubrey Davis, M.D., 2 vols. Philadelphia: P. Blackiston, Son and Co., 1012 Walnut-street, 1892-1893. Sydney: L. Bruck.

A BROAD and liberal education in the treatment of disease may be obtained from the study of this Encyclopædic work. The methods pursued by the representative men of Europe and America are given with an intelligible conciseness worthy of all praise. The student is little likely to be tainted with prejudice, as the views expressed are frequently of the most conflicting kind. Amidst a multitude of instances, *e.g.*, in acute vaginitis, Lawson Tait states that on no account should injections be used; De Sinety advocates lukewarm emollient injections.

Peaslee says chloroform is contraindicated in ovariotomy on account of its tendency to produce emesis. Gaillard Thomas, the eminent gynæcologist, calls attention to the advantage of chloroform over ether, the latter inducing even greater disturbance than chloroform. Catholicity of spirit towards brethren of the craft will be engendered by a careful perusal of the various methods of treatment adopted, while the reader is led by this very diversity of opinion to form a judicial and independent view.

The portion of Vol. I. devoted to the therapeutics of diseases of children is remarkly well done. The chapter on the clinical examination of children exhibits the spirit of that classical writer, Charles West, with the greater fulness brought about by the evolution of time and experience.

A faithful resumé, historical and practical, is given in the account of antiseptic treatment, and the old and new Listerian methods are discussed at length. What has been done by Lister—*clarum et venerabile nomen*—receives fitting and graceful praise.

In the treatment of snakebites there is simply an allusion to the action of strychnia as an antidote to the tendency to respiratory paralysis, but no notice of its systematic use in Australia and India.

Gynæcological therapeutics, as was to be expected in a work of American origin, are fully treated. There is a good deal of conflicting opinion in this domain, but as so much in this department may be regarded as debatable ground, it is an advantage rather than a defect. There is a vast deal of information in these pages, culled from the highest and most trustworthy sources.

Quotations from recent congresses and medical journals of the last year or two amply prove that the work is up to date. We commend this ninth edition to our readers as a thoroughly satisfactory presentation of the art of therapeutics in all its branches.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES: A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by Charles E. Sajous, M.D. In 5 vols. London: F. J. Rebman, 1893.

THIS is the sixth issue of this annual. Dr. Sajous, of Paris, is the editor, and he is assisted by no less than 70 associate editors and over 200 correspondents in all parts of the world. We notice the names of several medical men in Melbourne and Sydney among these.

The perusal of these volumes cannot fail to call forth our unbounded astonishment at the marvellous development of medical science. It is positively bewildering to find verifications from 1,096 journals devoted to medicine, surgery and allied sciences.

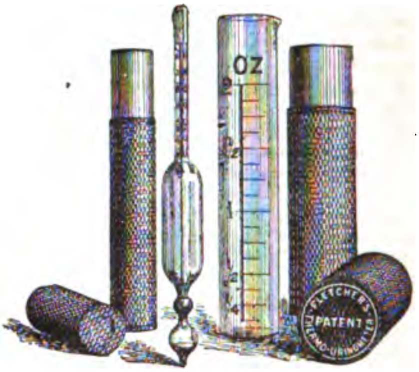
The work is thoroughly international, since, though the main work has been done by Americans, there are special articles by Dujardin-Beaumetz, Richardson, Lépine, Obersteiner, Bourneville, Norman Kerr, Budin, Lutand, Apostoli, Poirier and Dudley Buxton. As a work of reference as to what has been done during 1893, it is certainly without a parallel. The ever-vigilant zeal of the American permits nothing of importance to pass unnoticed, and a generous liberality is shown in culling from every source. An inestimable advantage to be had by the possessor of these volumes is that everything of the very latest regarding a particular subject can be seen at once, and the extracts from journals or works verified as to date, month and year.

It is impossible to estimate the indebtedness of the English-speaking members of the profession to Dr. Sajous for his earnestness, energy and patient research.

An index to each volume has been prepared by N. J. McCarthy, Paris, and is a marvel of exactness.

TO LET.—Large balcony room and room adjoining; use of waiting room; door attendance. Rent 30s. Apply 173 Liverpool-street, Hyde Park, Sydney.

A NEW THERMO-URINOMETER.



MESSRS. FLETCHER, FLETCHER & STEVENSON, of 21 Mincing Lane, London, E.C., are the Patentees of this ingeniously constructed Thermo-Urinometer. A sensitive thermometer is blown in one piece with the Urinometer, so that the physician, when taking the specific gravity of a sample of urine, does not incur the inconvenience of having to employ a separate thermometer, or of making random allowances for differences in temperature. The Thermo-Urinometer is fitted into a small leather tubular case, which packs inside a graduated urine-testing cylinder. The whole is contained in a handsome leather outer case, which may be easily carried in the breast pocket. The price complete is 7s. 6d.

THE MONTH.

NEW SOUTH WALES.

THE proportion of deaths registered in Sydney and suburbs during October to every 1,000 of the population was 1·72, and of births 2·80.

THERE were seven deaths of child-bearing women in Sydney and suburbs during October, or one death of a mother to every 164 births registered.

140 persons in Sydney and suburbs died from measles during October, and 18 from scarlet fever.

MEASLES are very prevalent at Tumut.

THE following examiners have been appointed to act with the professors and lecturers in the conduct of the annual examinations in medicine at the Sydney University:—Anatomy, Dr. A. E. Mills; Physiology, Dr. Stirling; Materia Medica and Therapeutics, Dr. G. Watson Munro; Pathology, Dr. G. E. Rennie; Surgery, Sir Alfred Roberts; Medicine, Dr. C. K. Mackellar; Medical Jurisprudence, Dr. Ashburton Thompson; Psychological Medicine, Dr. F. Norton Manning; Ophthalmic Medicine and Surgery, Dr. Murray Oram; Clinical Medicine, Dr. P. Sydney Jones; Clinical Surgery, Dr. Fiaschi; Midwifery and Diseases of Women, Dr. Graham.

THE Directors of the Sydney Hospital have decided to provide the institution with adequate ambulance equipment, to be available to the public at a small charge, with a view of lessening the use of public vehicles in conveying cases of infectious diseases to the metropolitan hospitals.

Dr. Warren, Visiting Medical Officer, and Drs. Woodward and Marano, Honorary Medical Officers of the Sydney Benevolent Asylum, have resigned their positions, in consequence, as they allege, of the Board of Directors not acting on their advice.

The Lying-in ward of the Sydney Benevolent Asylum has been closed owing to an outbreak of puerperal fever; the yearly average number of lying-in cases admitted to the asylum is 320. The Government have established a temporary lying-in hospital near Moore Park, of which Dr. Grace Robinson has been appointed Resident Medical Officer, and we understand that Dr. S. B. Sweet, of the Little Bay Coast Hospital, will be appointed Resident Medical Officer, at a salary of £100 per annum, to the Benevolent Asylum.

A girl of 16, of European parentage, has been removed from West Maitland to the Little Bay Hospital, suffering from leprosy.

A native of Madras, who was admitted to the Newcastle Hospital suffering from a gangrenous condition of the left hand, was found to be suffering from a rare form of leprosy.

The Attorney-General has declined to prosecute in the case of Herman Stanton Dick, one of the many unregistered practitioners in Sydney, who had been committed for trial, charged with having performed an illegal operation.

At the last annual meeting of the Petersham Branch of St. John's Ambulance Association, Dr. J. F. McAllister was presented with a silver and crown Derby cake basket, and Dr. R. E. Roth with a combined butter, cheese and biscuit holder, each article bearing recipient's name with the inscription—"From his two classes, St. John's Ambulance Association, Petersham Branch. November 17, 1893."

We regret to have to record the death of Mr. Charles Edward Rowling, M.R.C.S. Eng. *et* L.R.C.P. Edin. 1868, who died at Gresford on November 13, aged 50 years. The deceased gentleman, after practising for nearly 15 years at Mudgee, where he held the position of Coroner for the district and Medical Officer of the local hospital, removed in 1884 to Parramatta, and was appointed Visiting Surgeon to the Government institutions and Parramatta Gaol; but ill health compelled him to resign these appointments about five years ago, and since then he had been practising at Fernmount, and more recently at Gresford, on the Paterson River.

We regret to have to record the death of Dr John Scott Wilson, M.D. 1868, Ch.M. 1874 Glas., who died at the Grosvenor Hotel, Sydney, on November 16, aged 59 years. The deceased gentleman formerly practised at Mt. Barker, Penola, Port Adelaide, and Port Darwin, also at Wentworth and Wilcannia, but during the last six years he has been travelling to and fro in all parts of the world.

Dr. J. T. Dale, late of Lake Cudgellico, has commenced practice at Balmain, near Sydney.

Dr. J. T. Dale, of Balmain, has taken out a patent for a "Specific to prevent a desire for, and to cure the deleterious effects of, alcohol when taken in excess."

Dr. J. B. Marr, formerly of Ballan (Vic.), has commenced practice at Mount Victoria.

Dr. Jos. Parker, formerly of Redfern, and late of Ashfield, is now practising at Singleton.

Dr. R. J. Pope has commenced practice as a specialist for diseases of the eye at Elizabeth-street, Hyde Park, Sydney; Dr. Pope, we learn, is to be appointed Honorary Assistant Ophthalmic Surgeon at the Sydney Hospital.

Dr. E. P. Sinclair has commenced practice at "Olive Bank," Enmore-road, Newtown (Sydney).

Dr. Stanley Tresidder, late of Bathurst, and formerly of Glen Innes, has succeeded to Dr. W. E. Roth's practice at Young.

NEW ZEALAND.

Of the four chief towns of New Zealand, Christchurch had the highest death-rate per 1,000 persons living in October, viz., 1·08, then follows Wellington with 0·98, Auckland with 0·83, and Dunedin with 0·72.

The Town Clerk of Masterton states that it is a common practice in Masterton to bury stillborn infants in back yards.

Dr. Thos. Cahill has been appointed United States Consular Agent at Wellington.

Dr. J. Clouston has removed from Davenport to Waiuku, 44 miles from Auckland.

Dr. D. Colquhoun, of Dunedin, has returned from his trip to Europe after an absence of nearly 12 months.

Dr. J. L. Reed, late of Neutral Bay, near Sydney, has commenced practice at Waipawa, 39 miles from Napier.

Dr. C. E. Foucart Scanlan, formerly of St. Vincent Hospital, Sydney, has commenced practice at Lower Hutt, near Wellington.

Dr. E. W. Sharman, formerly *locum tenens* for Dr. Scott, of Onehunga, has arranged to take charge of Dr. T. Hope Lewis' practice at Auckland during the latter's absence in the old country.

Dr. W. Martin Smith has removed from Laurence to Hunterville, 134 miles north of Wellington.

QUEENSLAND.

The percentage of deaths to the population of Brisbane and suburbs during October was 0·18, and of births 0·30.

During October 54·97 per cent. of the deaths recorded in Brisbane and suburbs were of children under five years of age, and the true infantile mortality or deaths under one year, as compared to births, was 22·06.

Influenza has been very prevalent at Bundaberg and Eidsvold.

Measles are very prevalent at Ingham.

The Government have decided to establish a Stock Institute in Brisbane for pathological and bacteriological purposes, and it is probable that Mr. Pound, the bacteriologist at present in Brisbane, will take the position of instructor. Mr. Pound has lately been conducting a class for medical men in Brisbane for microscopical investigations. He formerly held the position of Professor in Queen's College, London.

Dr. H. J. Hewer, of Blackall, has gone to England for six months. During his absence Dr. R. H. Symes, formerly of Gladstone, will carry on his practice.

Dr. E. G. K. Marks is now practising at Roma.

Dr. J. I. Moore has resigned his appointment as Government Medical Officer at Springsure.

Dr. J. B. Ryan, late of Cloncurry, has commenced practice at Surat, 338 miles W. of Brisbane.

Dr. E. H. Scott, a Sydney graduate, has been appointed Temporary Medical Officer at the Brisbane Hospital.

Dr. John Thomson, of Brisbane, has been appointed Chief Medical Officer in Queensland for the Equitable Life Assurance Society of New York.

Dr. C. J. Weekes, formerly of Lithgow (N.S.W.), has just returned from his trip to England, and has started practice in Brisbane as a surgeon-oculist.

Dr. C. J. H. Wray, of Brisbane, has been appointed Visiting Surgeon to the Reserve set apart for an Aboriginal Mission on Stradbroke Island

SOUTH AUSTRALIA.

A buggy, containing Dr. Lawrence, of Adelaide, and his coachman, collided with a train on November 16. The buggy was smashed to atoms and the horse was killed instantly. The occupants were thrown into the road. Dr. Lawrence received severe bruises and shock to the system.

A "Parkinson Memorial Fountain" has been erected at Crystal Brook as a tribute of the high esteem in which the late Dr. Parkinson was held by the residents.

Measles have been very prevalent at Renmark, Minlaton, Normanville and Port MacDonnell.

TASMANIA.

The proportion of deaths registered during October last to every 1,000 of the population was 2·16 in Hobart, and 2·10 in Launceston; and as to births 2·86 for Hobart, and 2·77 for Launceston.

Dr. G. E. Clemons has commenced practice at Launceston.

Dr. P. W. Fraser, of Launceston, has left for England.

Dr. G. H. Hogg has been appointed House Surgeon at the Hobart General Hospital in the place of Dr. O'Brien, now of the New Norfolk Asylum.

Dr. Chas. Parker has been elected House Surgeon at the Launceston Hospital.

Dr. J. T. Wilson has commenced practice at Launceston.

VICTORIA.

A Meeting of provincial and country medical practitioners, called by circular, was held at the Port Phillip Hotel, Melbourne, on 8th November, Dr. Pinnock (Ballarat) occupying the chair. It was resolved to form an *Australasian Medical Association*, the constitution to be determined by delegates from the various branches in the country districts at a date to be decided on. Dr. Florance (Mooroopna) and Dr. Scott (Ballarat) were appointed to act as interim secretaries, and were empowered to draft a constitution for approval by the various branches which may be formed.

To every 1,000 of the population of Greater Melbourne, the proportion of births registered in October was 2·75, and of deaths 1·16; males contributed 60 per cent., and females 40 per cent. to the mortality during the month of October; children under five years of age contributed 28 per cent.

The Council of the University of Melbourne has admitted the following candidates to the degree of *Bachelor of Medicine*:—Lilian Helen Alexander (Trinity), Robert Hodgson Anderson, Mary Elizabeth Amy Castilla, Frederica Waltham Dickens, Patrick Paul Dowling, Frederick John Gawne (Queen's), Thomas James William Kenny, Frank Cole Madden, John Ramsay, Charles Joseph Sabelberg, Emily Mary Page Stone, Robert Henry Strong. *Bachelor of Surgery*:—Julian Gilbert Dessailly, Matthew Francis Kelly.

Mr. W. H. Gibson, secretary of the committee of management of the Women's Hospital, has written to the Dean of the Faculty of Medicine of the Melbourne University, complaining, by direction of the committee of managment, of the disgraceful proceedings of a small party of medical students who visited this hospital on the afternoon of Friday, 27th October. They surreptitiously entered the students' room, and smeared the walls and soiled and damaged the bedding and furniture in the room.

The following appointments have been made to the Honorary Staff of the newly-established St. Vincent's Hospital in Melbourne:—Hon. Consulting Physician, Sir Anthony Colling Brownless; Hon. Consulting Surgeon, Dr. Fitzgerald; Hon. Physicians, Drs. P. Moloney, M'Inerney and Morton; Hon. Surgeons, Messrs. M. U. O'Sullivan (specialist) and G. A. Syme; Mr. Stirling; Outdoor Department, Mr. L. Kenny (specialist), Mr. Herman Lawrence (specialist), Mr. Nelly (Hon. Surgeon).

The collections taken in the Melbourne churches on October 22, Hospital Sunday, in aid of the metropolitan charities, realized £3,350, as against £5,392 last year.

Dr. Aubrey Bowen, late of Melbourne, who died in England in July last, has bequeathed £100 to the Melbourne Ladies' Benevolent Society, £100 to the Victorian Eye and Ear Hospital, and £20,000 to be distributed among the charitable or benevolent institutions and organizations of Victoria at the discretion of his widow.

Mr. Henry Christian Jee, M.R.C.S. Eng. 1877, L. *et* L. Mid. M.R.C.P. Edin. 1881, late of Alexandra, died from phthisis at Hong Kong on the 30th September, aged 37 years. The deceased gentleman arrived in Victoria in 1883, and practised at Brighton, Inglewood, St. Arnaud, Charlton and Alexandra. He was a native of Warwickshire (Eng.), and was formerly Medical Officer of the Deptford (Eng.) Smallpox Hospital, also Surgeon to Money, Wigram and Co.'s, Green and and Co.'s, Lamport and Holt's, and the African S. Co.'s steamers.

Dr. James Abernethy, formerly of Port Melbourne, but now in England, has been appointed Clinical Assistant in the Central London Nose, Ear and Throat Hospital.

Dr. J. E. Butchart, a recent arrival, has succeded to Dr. Park's practice at Yarram-Yarram.

Sir Anthony Brownless, M.D., Chancellor of the Melbourne University, has instituted an action for £2,000 against the owner of a cart by which he was knocked down in Swanston-street and seriously injured some months ago.

Dr. E. Alleyne Cooke, late of Richmond (Eng.), has joined Dr. Seelenmeyer, of Collins-street, Melbourne.

Dr. H. A. Deravin, of Pyramid Hill, has been appointed House Surgeon at the Inglewood Hospital, vice Dr. A. Adam, deceased.

Dr. A. Grant, late of North Carlton, has succeeded to Dr. Morrison's practice at Oakleigh.

Dr. R. H. Morrison, late of Oakleigh, has succeeded to the practice of the late Dr. Steel at Toorak.

Dr. J. C. Morton has commenced practice at Broadford, 47 miles N.E. of Melbourne.

Dr. Jas. Murdoch, formerly of Echuca, is now practising at Bruthen, in Gippsland, 198 miles E. of Melbourne.

DR. D. MONTGOMERY PATON, formerly of South Melbourne, has succeeded to the practice of Dr. W. Warren at Kew.

DR. W. WARREN has removed from Kew to 77 Collins-street, Melbourne.

DR. J. R. WOLFE, surgeon-oculist from Glasgow, has returned to Melbourne and resumed practice at Menzies' Hotel.

WESTERN AUSTRALIA.

DR. L. WHEELER has been appointed to act as Colonial Surgeon and Superintending Medical Officer of the Lunatic Asylum at Fremantle during the absence on leave of Dr. H. C. Barnett.

DR. J. A. O'MEEHAN has been appointed Surgeon-Captain of the York Infantry Volunteers.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

◆

The following gentlemen, having presented their diplomas, have been duly registered as legally qualified Medical Practitioners by the respective Boards:—

NEW SOUTH WALES.

Sinclair, Edward Petrie, M.B. *et* M.S. Glasg. 1893.
Sellar, William Grant, M.B. *et* M.S. Edin. 1892; L.R.C.P. Edin. 1892; L.R.C.S. Edin. 1892; L.F.P.S. Glasg. 1892.
Pope, Roland James, M.D. Edin. 1892; M.S. Edin. 1890; F.R.C.S. Edin. 1893.
Bohrsmann, Otto, M.B. *et* M.S. Aberd. 1893.
Cromwell, Arthur John, L.R.C.P. Edin. 1893; L.R.C.S. Edin. 1893; L.F.P.S. Glasg. 1893.

NEW ZEALAND.

Reed, James Lewis, M.B. *et* Ch.M. Ed. 1891.
Martin, James, L.R.C.P. *et* R.C.S. Ed., L.F.P.S. Glas.

TASMANIA.

Hogg, Gustave Heuzé, M.B., Ch.M. Ed. 1892.
Parker, Charles, M.B. *et* Ch.M. Edin. 1892.
Wilson, John Thomas, M.B. *et* Ch.M. Edin. 1891.

VICTORIA.

Scott, John Alexander, M.B. *et* Ch.M. Edin. 1889.
Lambert, Joseph Labatt de, M.D. Paris 1870.
Donovan, Philip Henry, M.B. Ch.B. *et* B.A.O., R. Univ. Irel. 1889.
Buick, James, M.B. *et* Ch.M. Glas. 1892.
Courtney, Charles Arthur, L. *et* L.Mid. R.C.P. *et* R.C.S. Edin. 1893; L.F.P.S. Glas. 1893.
Macknight, William Crawfurd, M.B. *et* Ch.M. Edin. 1893.
Castilla, Marie Elizabeth Amy, M.B. Melb. 1893.
Alexander, Lilian Helen, M.B. Melb. 1893.
Stone, Emily Mary Page, M.B. Melb. 1893.
Dickins, Frederick Waltham, M.B. Melb 1893.
Sabelberg, Charles Joseph, M.B. Melb 1893.
Dowling, Patrick Paul, M.B. Melb. 1893.
Gawne, Frederick John, M.B. Melb. 1893.
Anderson, Robert Hodgson, M.B. Melb. 1893.
Kenny, Thomas James William, M.B. Melb, 1893.
Ramsay, John, M.B. Melb. 1893.
Madden, Frank Cole, M.B. Melb. 1893.
Strong, Robert Henry, M.B. Melb. 1893.

WESTERN AUSTRALIA.

McEnery, James Joseph, L.R.C.P. *et* R.C.S. Edin., L.F.P.S. Glas. 1887.
Spencer, Edward, M.B. *et* B.S. Vict. Univ. Manchester 1893; L.S.A. Lond. 1893.

MEDICAL APPOINTMENTS.

◆

Cameron, William Johnstone, M.B. *et* Ch.B. Ed., to be Health Officer for Mildura shire; Vic., vice Dr. Abramowski, resigned.
Looking, Benjamin, L.R.C.P. Lond., M.R.C.S.E., to be Public Vaccinator for the district of Palmerston North, N.Z.
McGee, William, L.R.C.S.I., L.K.Q.C.P. Irel, to be Health Officer for shire of Poowong and Jeetho, Vic.
Rockett, Patrick Joseph Aloysius, M.B. *et* Ch.B. Melb., to be Health Officer for Ringarooma, Tas.
Torrance, James, M.B. *et* B.S. Univ. N.Z., to be a Public Vaccinator for the district of Campbelltown, N.Z.

BIRTHS, MARRIAGES, AND DEATHS.

◆

BIRTHS.

BENNETT.—On the 22nd October, at Millicent, S.A., the wife of T. C. Bennett, M.B., C.M., of a daughter.
CLENDINNEN.—On the 12th November, at Hawksburn, Melbourne, the wife of F. J. Clindinnen, M.D., of a daughter.
EVANS.—On the 7th November, at Hindmarsh, Adelaide, the wife of J. H. Evans, M.D. Ch.B., of a daughter.
HETHERINGTON.—November 10, at Rockdale, Sydney, the wife of Henry B. Hetherington, M.D., of a daughter.
KEENAN.—On November 26, at 40 College-street, Sydney, the wife of Alfred J. W. Keenan, M.D., of a son.
MARSHALL.—At 196 Elizabeth-street, Sydney, on November 14, the wife of Fred. W. Marshall, M.B. and C.M. Edin., of a son.
SUTTON.—On the 5th November, at Terang, Vic., the wife of Charles S. Sutton, M.B. *et* Ch.B., of a daughter.
TROUP.—On the 7th November, at West Melbourne, the wife of J. K. Troup, L.R.C.P., of a son.
VANCE.—On the 21st November, at Bacchus Marsh, Vic., the wife of Dr. Noel Vance, of a daughter.

MARRIAGES.

BROOM—BAILLIE.—November 19, at the Wesleyan Parsonage, Princes-street, Sydney, Robert Broom, M.B., C.M., of Cudal, N.S.W., to Mary Baird, third daughter of John A. Baillie, of Glasgow.
DOWNIE—SMITH.—On the 19th October, at South Yarra, by the Rev. R. S. Benson, T. Taylor Downie, M.B. C.M., Clifton Hill, Melbourne, to Katie, eldest daughter of Mrs. J. W. Smith, South Yarra.
GWYNNE-HUGHES—MANDY.—On November 6, at St. Paul's Church, Redfern, Sydney, Devereux Gwynne-Hughes, L.R.C.P.S. Ed., to Isabel, youngest daughter of the late Henry Charles Mandy, Solicitor, Richmond-on-Thames, England.
JOYCE—RAMSAY.—On the 17th October, at St. Andrew's Church, Adelaide, Alfred Fleming Joyce, M.B., B.S., of East Brighton, Victoria, to Edith Charlotte, second daughter of John Ramsay, Adelaide.
THOMSON—CUNNINGHAM.—On the 1st November, at Christ Church, South Yarra, James Service Thomson, M.B., M.R.C.S. Eng., of South Melbourne, to Ellen, youngest daughter of the late George Cunningham, Geelong, Vic.

TO SURGEONS AND OTHERS.

APPLICATIONS for the position of Surgeon to the Boulia Hospital are hereby invited. Applicants must state salary with, and without, right of private practice. Applications, endorsed "Application," must be in the hands of the Secretary, Boulia, not later than January 4, 1894. The successful applicant will be expected to dispense his own drugs.

Boulia, Queensland, 19th October, 1893.

APPLICATIONS will be received at the office of the undersigned up to Monday, 1st January, 1894, for the position of a fully qualified Surgeon to the Croydon District Hospital. Testimonials to accompany applications. Salary £300 per annum, and private practice allowed. J. F. BARNETT, Secretary.

Alldrige-st., Croydon, Queensland, 9th November, 1893.

VICTORIA HOSPITAL, CENTRAL RAILWAY BARCALDINE, QUEENSLAND.—The Committee invite applications from Medical Practitioners willing to undertake the duties of Surgeon and Dispenser to the above institution. Salary, £300 per annum. Applications, with copies of testimonials, to be addressed to the undersigned before the 23rd December next. Successful applicant would be required to commence duties on the 3rd February, 1894. There are three Friendly Societies —Foresters, with 100 members; Oddfellows, 80 members; Hibernians, 65 members.

C. H. FYSH, Secretary.

REPORTED MORTALITY FOR THE MONTH OF OCTOBER, 1893.

Cities and Districts.	Population.	Births Registered.	Deaths Registered.	Deaths under Five Years.	Number of Deaths from											
					Measles.	Scarlet Fever.	Croup and Diphtheria.	Influenza.	Typhoid Fever.	Dysentery and Diarrhœa.	Phthisis.	Bronchitis and Pneumonia.	Heart Disease.	Cancer.	Hydatid Disease.	Child-bearing.
N. S. WALES.																
Sydney	111,244	284	229	111	56	5	3	2	2	1	16	29	12	11	...	3
Suburbs	275,615	867	479	269	84	13	17	5	2	15	19	88	14	12	1	4
NEW ZEALAND.																
Auckland	31,268	81	26	12	1	...	...	...	...	1	3	2	...	1	...	...
Christchurch	16,704	22	18	3	...	...	...	1	...	...	1	4	3	1	...	...
Dunedin	23,302	43	16	3	...	...	...	...	...	...	3	2	3	2	...	...
Wellington	33,786	81	33	8	...	...	1	...	...	...	4	3	2	3	...	...
QUEENSLAND.																
Brisbane	56,075	171	126	68	22	...	2	10	...	19	17	21	6	2	...	1
Suburbs	37,582	110	45	26												
SOUTH AUSTRALIA	337,321	859	381	164	40	...	13	2	...	17	25	41	36	15	...	6
Adelaide	39,073	95	75	22	3	...	4	...	...	3	10	4	8	4	...	1
TASMANIA.																
Hobart	34,674	99	75	40	6	...	1	...	...	...	5	22	3	1	1	1
Launceston	22,370	62	47	20	4	...	1	...	...	1	5	9	5	4	...	1
Country Districts	98,503	296	89	...	2	...	2	3	1	1	4	...	...	...	...	..
VICTORIA.																
Melbourne	71,881	131	67	151	3	1	5	20	...	2	83	77	44	38	1	6
Suburbs	417,304	1,176	482													
WESTERN AUSTRALIA*	59,718	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* For the quarter ending

◆

METEOROLOGICAL OBSERVATIONS FOR OCTOBER, 1893.

STATIONS.	THERMOMETER.				Mean Height of Barometer.	RAIN.		Mean Humidity.	Prevailing Wind.
	Maximum Sun.	Maximum Shade.	Mean Shade.	Minimum Shade.		Depth.	Days.		
						Inches			
Adelaide—Lat. 34° 55′ 33″ S. ; Long. 138° 36′ E.	...	100·	61.8	41·5	29·813	...	...	...	...
Auckland—Lat. 36° 50′ 1″ S. ; Long. 174° 49′ 2″ E.	...	71·	59·8	46·	...	1·07	10	87	...
Brisbane—Lat. 27° 28′ 3″ S. ; Long. 153° 16′ 15″ E.	...	101·	71·3	52·9	29·944	2·56	8	65	E.
Christchurch—Lat. 43° 32′ 16″ S. ; Long. 172° 38′ 59″ E.	...	78·2	57·7	38·2	...	0·56	6	75	...
Dunedin—Lat. 45° 52′ 11″ S. ; Long. 170° 31′ 11″ E.	...	75·	53·9	38·	...	5·64	16	71	...
Hobart—Lat. 42° 53′ 32″ S. ; Long. 147° 22′ 20″ E.	...	77·	57·1	39·	29·788	·95	12	68	...
Launceston—Lat. 41° 30′ S. ; Long. 147° 14′ E.	...	73·	58·6	33·5	29·831	1·34	11	72	...
Melbourne—Lat. 37° 49′ 54″ S. ; Long. 144° 58′ 42″ E.	...	84·8	57·3	41·8	29·810	3·42	12	...	...
Perth—Lat. 31° 57′ 10″ S. ; Long. 115° 52′ 20″ E.	...	...	...	...	...	...	...	...	...
Sydney—Lat. 33° 51′ 41″ S. ; Long. 151° 11′ 49″ E.	...	80·4	64·3	50·7	29·973	3·69	15	69	S.
Wellington—Lat. 41° 16′ 25″ S. ; Long. 174° 47′ 25″ E.	...	71·8	58·5	45·	...	2·31	9	74	...

N12785